

# REGISTRATION

86004-1

Vol.1

**Fee for Service**

**{845378R~**

This package includes the following

- ☒ New Registration
- ☐ Amendment

☒ Studies? ☒ Fee Waiver?  
☐ volpay % Reduction: 75

for Division

- ☐ AD
- ☐ BPPD
- ☒ RD

Risk Mgr. 25

Receipt No.

S-

845378

EPA File Symbol/Reg. No.

86004-R

Pin-Punch Date:

2/24/2009

☐ This item is NOT subject to FFS action.

**Action Code:**

Requested:

Granted:

Amount Due: \$ 4578.00

**Parent/Child Decisions:**

86004-E / S845382

86004-G / S845398

86004-U / S845401

86004-L / S845428

~~Technical & Impurities only. 3/10/09~~

☒ Inert Cleared for Intended Use

☐ Uncleared Inert in Product

Reviewer: Venus Egle

Date: 2/25/09

Remarks:

~~Technical~~  
The source of TGA1 is not currently registered.

FEE

DATE OUT: 04/AUG/2009

FEE: PRODUCT CHEMISTRY REVIEW OF: A TECHNICAL GRADE TGAI [X]  
DP BARCODE NOs.: 365734 FILE SYMBOL No.: 86004-R  
MRIDs: 477397-01 ACTION CODE: R310  
PROUCT NAME: Glyphosate Technical FOOD& NON-FOOD USES [X]  
COMPANY NAME: Repar-Glypho, LLC DECISION NO.: 406729  
PPC OF THIS TGAI 417300

FROM: Sami Malak, Chemist *S. Malak*  
Technical Review Branch/RD (7505P)

*SRM 815709*

TO: RM 25 James Tompkins/Eugene Wilson  
Herbicide Branch/RD (7505P)

### INTRODUCTION:

In a letter dated 29/APR//2009, the applicant submitted a product chemistry data requirement pertaining to solubility of subject product in organic solvents.

### FINDINGS:

Solubility of subject product in organic solvents were reported as follows:

In all solvents, solubility was reported at <0.01 g/L at 20°C.

Solvents tested: Acetone; 1,2-dichloroethane; ethyl acetate; n-heptane; methanol; and p-xylene.

The same data was also reported in MRIDs 476854-04 & 477397-01 and reviewed in connection with a "me-too" registration of subject product (DP#363572, S. Malak, 04/AUG/2009).

### Conclusion

The submitted study pertaining to solubility of glyphosate in organic solvents is acceptable.

cc::S. Malak and Database File (Reg. No.86004-Ra).  
7505P:RD:TRB:PY-7347:s.m.:04/AUG/2009:703-308-9365:<86004-Ra>.04-R>.

# DATA PACKAGE BEAN SHEET

Date: 18-Aug-2009

Page 1 of 1

Decision #: 406729

DP #: (368227)

PRIA

Parent DP #:

Submission #: 856002

## \*\*\* Registration Information \*\*\*

Registration: 86004-R - GLYPHOSATE TECHNICAL

Company: 86004 - REPAR-GLYPHO, LLC

Risk Manager: RM 25 - James Tompkins - (703) 305-5697 Room# PY1 S-7337

Risk Manager Reviewer: James Tompkins JTOMPK02

Sent Date: 17-Aug-2009

Calculated Due Date: 17-Sep-2009

Edited Due Date: \_\_\_\_\_

Type of Registration: Product Registration - Section 3

Action Desc: (R310) NEW PRODUCT;NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT CHEMIST

Ingredients: 417300, Glyphosate(96.3%)

R310  
#25689

## \*\*\* Data Package Information \*\*\*

Expedite: ☒ Yes ☐ No

Date Sent: 18-Aug-2009

Due Back: \_\_\_\_\_

DP Ingredient: 417300, Glyphosate

DP Title: \_\_\_\_\_

CSF Included: ☒ Yes ☐ No

Label Included: ☐ Yes ☒ No

Parent DP #: \_\_\_\_\_

### Assigned To

Date In

Date Out

Organization: RD / TRB

Last Possible Science Due Date: 18-Aug-2009

Team Name: CHEM

Science Due Date: \_\_\_\_\_

Reviewer Name: *Samir Medak*

8/16/09

8/18/09

Sub Data Package Due Date: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

## \*\*\* Studies Sent for Review \*\*\*

No Studies

## \*\*\* Additional Data Package for this Decision \*\*\*

Can be printed on its own page

## \*\*\* Data Package Instructions \*\*\*

Please review revised basic CSF to determine if problems identified in the review of DP363572 have been resolved.

# DATA PACKAGE BEAN SHEET

Date: 03-Jun-2009

Page 1 of 2

Decision #: 406729

DP #: (365734)

PRIA

Parent DP #:

Submission #: 846182

## \*\*\* Registration Information \*\*\*

Registration: 86004-R - GLYPHOSATE TECHNICAL

Company: 86004 - REPAR-GLYPHO, LLC

Risk Manager: RM 25 - James Tompkins - (703) 305-5697 Room# PY1 S-7337

Risk Manager Reviewer: Eugene Wilson EWILSO04

Sent Date: 10-Mar-2009

Calculated Due Date: 17-Sep-2009

Edited Due Date:

Type of Registration: Product Registration - Section 3

Action Desc: (R310) NEW PRODUCT;NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT CHEMIST

Ingredients: 417300, Glyphosate(96.3%)

*R310*  
*# 25309*

## \*\*\* Data Package Information \*\*\*

Expedite: ☐ Yes ☒ No

Date Sent: 03-Jun-2009

Due Back:

DP Ingredient: 417300, Glyphosate

DP Title: Additional Data, Solubility in Organic Solvents

CSF Included: ☒ Yes ☐ No

Label Included: ☒ Yes ☐ No

Parent DP #:

Assigned To

Date In

Date Out

Organization: RD / TRB

Last Possible Science Due Date: 18-Aug-2009

Team Name: CHEM

Science Due Date:

Reviewer Name: *Samir Mahab* 7/28/09 8/4/09

Sub Data Package Due Date:

Contractor Name:

## \*\*\* Studies Sent for Review \*\*\*

Printed on Page 2

## \*\*\* Additional Data Package for this Decision \*\*\*

Can be printed on its own page

## \*\*\* Data Package Instructions \*\*\*

Please review this additional product chemistry data (MRID 477397-01) submitted in support of this application to register Glyphosate Technical. If there are any questions, please see me in cubical S-7326. Thank you, Eugene Wilson

*Review included with*  
*DP # 463572, Samir Mahab 8/4/09*

MRID	MRID Status	Citation Reference	Guideline
47739701		Suratwala, T. (2009) Solubility of Glyphosate Technical in Organic Solvents. Project Number: 8489. Unpublished study prepared by Jai Research Foundation. 35 p.	

# DATA PACKAGE BEAN SHEET

Date: 30-Mar-2009

Page 1 of 2

Decision #: 406729

DP #: (363572)

PRIA

Parent DP #:

Submission #: 845378

## \*\*\* Registration Information \*\*\*

Registration: **86004-R - GLYPHOSATE TECHNICAL**

Company: 86004 - REPAR-GLYPHO, LLC

Risk Manager: RM.25 - James Tompkins - (703) 305-5697 Room# PY1 S-7337

Risk Manager Reviewer: Vickie Walters ~~WALTERS~~

Sent Date: \_\_\_\_\_

Calculated Due Date: 17-Sep-2009

Edited Due Date: \_\_\_\_\_

Type of Registration: Product Registration - Section 3

Action Desc: (R310) NEW PRODUCT;NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT CHEMIST

Ingredients: 4/7300

## \*\*\* Data Package Information \*\*\*

Expedite: ☐ Yes ☒ No

Date Sent: 30-Mar-2009

Due Back: \_\_\_\_\_

DP Ingredient: \_\_\_\_\_

DP Title: ReparGlypho--Glyphosate Technical

CSF Included: ☒ Yes ☐ No

Label Included: ☒ Yes ☐ No

Parent DP #: \_\_\_\_\_

### Assigned To

Date In

Date Out

Organization: RD / TRB

Last Possible Science Due Date: 18-Aug-2009

Team Name: CHEM

Science Due Date: \_\_\_\_\_

Reviewer Name: Sami Malah

7/28/09

8/4/09

Sub Data Package Due Date: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

## \*\*\* Studies Sent for Review \*\*\*

Printed on Page 2

## \*\*\* Additional Data Package for this Decision \*\*\*

No Additional Data Packages

## \*\*\* Data Package Instructions \*\*\*

Please review enclosed information to determine if proposed technical is similar enough to 524-420 for its generic database to be used to support registration. Enclosed are company appl, letter, data matrix, proposed and cited CSFs and labels and MRIDs 476865401-11, 13, 14; 47697201,02

R310  
25029

Transferred  
to  
Eugene

MRID	MRID Status	Citation Reference	Guideline
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7370/Dissociation constant in water
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7550/Partition coefficient (n-octanol/water), shake flask method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7560/Partition coefficient (n-octanol/water), generator column method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7570/Partition coefficient (n-octanol/water), estimation by liquid chromatography
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7840/Water solubility: Column elution method, shake flask method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7860/Water solubility, generator column method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7950/Vapor pressure
47685405		Sayyad, K. (2001) Appearance (Color, Physical State and Odour) of Glyphosate Technical. Project Number: 3160. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6302/Color
47685405		Sayyad, K. (2001) Appearance (Color, Physical State and Odour) of Glyphosate Technical. Project Number: 3160. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6303/Physical state
47685405		Sayyad, K. (2001) Appearance (Color, Physical State and Odour) of Glyphosate Technical. Project Number: 3160. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6304/Odor
47685406		Joshi, C. (2001) Oxidation/ Reduction Property of Glyphosate Technical. Project Number: 3166. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6314/Oxidizing or reducing action
47685407		Desai, H. (2001) Flammability of Glyphosate Technical. Project Number: 3165. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6315/Flammability
47685408		Khullar, A. (2001) pH of Glyphosate Technical. Project Number: 3167. Unpublished study prepared by Jai Research Foundation. 14 p.	830.7000/pH of water solutions or suspensions
47685409		Joshi, C. (2001) Melting Point of Glyphosate Technical. Project Number: 3161. Unpublished study prepared by Jai Research Foundation. 14 p.	830.7200/Melting point/melting range
47685410		Desai, H. (2001) Tap Density of Glyphosate Technical. Project Number: 3162, CIPAC/MT/33. Unpublished study prepared by Jai Research Foundation. 15 p.	830.7300/Density/relative density
47685411		Suratwala, T. (2002) Determination of Dissociation Constants of Glyphosate by Titrimetric Method. Project Number: 3168. Unpublished study prepared by Jai Research Foundation. 25 p.	830.7370/Dissociation constant in water
47685413		Joshi, C. (2002) Water Solubility of Glyphosate. Project Number: 3763. Unpublished study prepared by Jai Research Foundation. 107 p.	830.7840/Water solubility: Column elution method, shake flask method
47685414		Srivastava, V. (2003) Vapour Pressure of Glyphosate Technical. Project Number: 4164. Unpublished study prepared by Jai Research Foundation. 40 p.	830.7950/Vapor pressure
47697201		Agarwal, M. (2002) Partition Coefficient (n-Octanol/Water) of Glyphosate. Project Number: 3164. Unpublished study prepared by Jai Research Foundation. 53 p.	830.7550/Partition coefficient (n-octanol/water), shake flask method
47697202		Mandaba, N. (2007) UV/Visible Absorption of Glyphosate. Project Number: 09/2008. Unpublished study prepared by C.C. Shroff Research Institute. 18 p.	830.7050/UV/Visible absorption



MRID	MRID Status	Citation Reference	Guideline
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7370/Dissociation constant in water
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7550/Partition coefficient (n-octanol/water), shake flask method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7560/Partition coefficient (n-octanol/water), generator column method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7570/Partition coefficient (n-octanol/water), estimation by liquid chromatography
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7840/Water solubility: Column elution method, shake flask method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7860/Water solubility, generator column method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7950/Vapor pressure
47685405		Sayyad, K. (2001) Appearance (Color, Physical State and Odour) of Glyphosate Technical. Project Number: 3160. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6302/Color
47685405		Sayyad, K. (2001) Appearance (Color, Physical State and Odour) of Glyphosate Technical. Project Number: 3160. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6303/Physical state
47685405		Sayyad, K. (2001) Appearance (Color, Physical State and Odour) of Glyphosate Technical. Project Number: 3160. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6304/Odor
47685406		Joshi, C. (2001) Oxidation/ Reduction Property of Glyphosate Technical. Project Number: 3166. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6314/Oxidizing or reducing action
47685407		Desai, H. (2001) Flammability of Glyphosate Technical. Project Number: 3165. Unpublished study prepared by Jai Research Foundation. 13 p.	830.6315/Flammability
47685408		Khullar, A. (2001) pH of Glyphosate Technical. Project Number: 3167. Unpublished study prepared by Jai Research Foundation. 14 p.	830.7000/pH of water solutions or suspensions
47685409		Joshi, C. (2001) Melting Point of Glyphosate Technical. Project Number: 3161. Unpublished study prepared by Jai Research Foundation. 14 p.	830.7200/Melting point/melting range
47685410		Desai, H. (2001) Tap Density of Glyphosate Technical. Project Number: 3162, CIPAC/MT/33. Unpublished study prepared by Jai Research Foundation. 15 p.	830.7300/Density/relative density
47685411		Suratwala, T. (2002) Determination of Dissociation Constants of Glyphosate by Titrimetric Method. Project Number: 3168. Unpublished study prepared by Jai Research Foundation. 25 p.	830.7370/Dissociation constant in water
47685413		Joshi, C. (2002) Water Solubility of Glyphosate. Project Number: 3763. Unpublished study prepared by Jai Research Foundation. 107 p.	830.7840/Water solubility: Column elution method, shake flask method
47685414		Srivastava, V. (2003) Vapour Pressure of Glyphosate Technical. Project Number: 4164. Unpublished study prepared by Jai Research Foundation. 40 p.	830.7950/Vapor pressure
47697201		Agarwal, M. (2002) Partition Coefficient (n-Octanol/Water) of Glyphosate. Project Number: 3164. Unpublished study prepared by Jai Research Foundation. 53 p.	830.7550/Partition coefficient (n-octanol/water), shake flask method
47697202		Mandaba, N. (2007) UV/Visible Absorption of Glyphosate. Project Number: 09/2008. Unpublished study prepared by C.C. Shroff Research Institute. 18 p.	830.7050/UV/Visible absorption

# DATA PACKAGE BEAN SHEET

Date: 03-Jun-2009

Page 1 of 2

Decision #: 406729

DP #: (365734)

PRIA

Parent DP #:

Submission #: 846182

## \*\*\* Registration Information \*\*\*

Registration: 86004-R - GLYPHOSATE TECHNICAL

Company: 86004 - REPAR-GLYPHO, LLC

Risk Manager: RM 25 - James Tompkins - (703) 305-5697 Room# PY1 S-7337

Risk Manager Reviewer: Eugene Wilson EWILSO04

Sent Date: 10-Mar-2009

Calculated Due Date: 17-Sep-2009

Edited Due Date: \_\_\_\_\_

Type of Registration: Product Registration - Section 3

Action Desc: (R310) NEW PRODUCT;NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT CHEMIST

Ingredients: 417300, Glyphosate(96.3%)

## \*\*\* Data Package Information \*\*\*

Expedite: ☐ Yes ☒ No

Date Sent: 03-Jun-2009

Due Back: \_\_\_\_\_

DP Ingredient: 417300, Glyphosate

DP Title: Additional Data, Solubility in Organic Solvents

CSF Included: ☒ Yes ☐ No

Label Included: ☒ Yes ☐ No

Parent DP #: \_\_\_\_\_

Assigned To

Date In

Date Out

Organization: RD / TRB

Last Possible Science Due Date: 18-Aug-2009

Team Name: CHEM

Science Due Date: \_\_\_\_\_

Reviewer Name: \_\_\_\_\_

Sub Data Package Due Date: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

## \*\*\* Studies Sent for Review \*\*\*

Printed on Page 2

## \*\*\* Additional Data Package for this Decision \*\*\*

Can be printed on its own page

## \*\*\* Data Package Instructions \*\*\*

Please review this additional product chemistry data (MRID 477397-01) submitted in support of this application to register Glyphosate Technical. If there are any questions, please see me in cubical S-7326. Thank you, Eugene Wilson

MRID	MRID Status	Citation Reference	Guideline
47739701		Suratwala, T. (2009) Solubility of Glyphosate Technical in Organic Solvents. Project Number: 8489. Unpublished study prepared by Jai Research Foundation. 35 p.	

Receipt for Section 3

S: 849389

Regulatory Type: Product Registration - Section 3

Application Type: New Registration

Company: 86004 REPAR-GLYPHO, LLC

Risk Manager: Registration Division, Risk Management Team 25

Product #: 86004-R

Product Name: GLYPHOSATE TECHNICAL

Override#:

Me Too Section3: 524-420

Me Too Product Name: GLYPHOSATE

Application Date: 29-Apr-2009

Front End Date: 29-Apr-2009

FFS Due Date:

OPP Target Date:

Fast Track:

Receipt Description: additional study

Form A:

Signature Date:

Resubmission: Yes No

Fee For Service: Yes No

Billable: Yes No

V

OPP Rec'd Date: 29-Apr-2009

Risk Manager Send Date: 29-Apr-2009

Negotiated Due Date:

New Ingredient:

Request Date:

New Ingredient Received Date:

Signature Date:

Print Letter

Enter More Information

Tracking

Receipt Content

Des

Study

View/Edit

**Receipt for Section 3**

S: 845378      Resubmission: ☐ Yes ☒ No

Regulatory Type: Product Registration - Section 3      Fee For Service: ☒ Yes ☐ No

Application Type: New Registration      Billable: ☒ Yes ☐ No

Company: 86004 REPAR-GLYPHO, LLC      V

Risk Manager: Registration Division, Risk Management Team 25

Product #: 86004R      Product Name: GLYPHOSATE TECHNICAL

Override#:

Me Too Section3: 524-420      Me Too Product Name: GLYPHOSATE

Application Date: 17-Feb-2009      OPP Rec'd Date: 23-Feb-2009

Front End Date: 24-Feb-2009      Risk Manager Send Date:

FFS Due Date:      Negotiated Due Date:

OPP Target Date:

Fast Track: ☐      New Ingredient: ☐

Receipt Description: Application for registration

D406729      R310

Form A: ☐      Signature Date:      Form B: ☐      Signature Date:

Receipt Content: Study, CSF

View/Edit

Print Letter  
Enter More Information  
Tracking

Route TRB

due 9/17/09

TRB/Chem: DP: 363572

Please review enclosed information to determine if proposed product is similar enough to 524-420 for its genetic database to be used to support registration. Enclosed is company app, letter, data meeting prepared and cited CSFs and labels and MRIDs 47685401-411, 13, 14; 47697201, 02.

TRB/Tox DP: 363573

Same as Chem only no MRIDs.

Receipt for Section 3

S: 846182

Regulatory Type: Product Registration - Section 3

Application Type: New Registration

Company: 86004 REPAR-GLYPHO, LLC

Risk Manager: Registration Division, Risk Management Team 25

Product #: 86004-R

Override#:

Me Too Section3: 524-420

Application Date: 10-Mar-2009

Front End Date: 10-Mar-2009

FFS Due Date:

OPP Target Date:

Fast Track:

Receipt Description: resubmission following 86-5 rejection

Form A:

Signature Date:

Resubmission: Yes

Fee For Service: No

Billable: No

V

Me Too Product Name: GLYPHOSATE

OPP Rec'vd Date: 10-Mar-2009

Risk Manager Send Date: 10-Mar-2009

Negotiated Due Date:

New Ingredient:

Request Date:

New Ingredient:

Received Date:

Signature Date:

Signature Date:

Print Letter

Enter More Information

Tracking

Receipt Content

Study

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# DATA PACKAGE BEAN SHEET

Date: 30-Mar-2009

Page 1 of 2

Decision #: 406729

DP #: (363572)

PRIA

Parent DP #:

Submission #: 845378

## \*\*\* Registration Information \*\*\*

Registration: **86004-R - GLYPHOSATE TECHNICAL**

Company: 86004 - REPAR-GLYPHO, LLC

Risk Manager: RM 25 - James Tompkins - (703) 305-5697 Room# PY1 S-7337

Risk Manager Reviewer: Vickie Walters VWALTERS

Sent Date: \_\_\_\_\_ Calculated Due Date: 17-Sep-2009

Edited Due Date: \_\_\_\_\_

Type of Registration: Product Registration - Section 3

Action Desc: (R310) NEW PRODUCT;NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT CHEMIST

Ingredients: \_\_\_\_\_

## \*\*\* Data Package Information \*\*\*

Expedite: ☐ Yes ☒ No

Date Sent: 30-Mar-2009

Due Back: \_\_\_\_\_

DP Ingredient: \_\_\_\_\_

DP Title: ReparGlypho--Glyphosate Technical

CSF Included: ☒ Yes ☐ No

Label Included: ☒ Yes ☐ No

Parent DP #: \_\_\_\_\_

### Assigned To

Date In

Date Out

Organization: RD / TRB

Last Possible Science Due Date: 18-Aug-2009

Team Name: CHEM

Science Due Date: \_\_\_\_\_

Reviewer Name: \_\_\_\_\_

Sub Data Package Due Date: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

## \*\*\* Studies Sent for Review \*\*\*

Printed on Page 2

## \*\*\* Additional Data Package for this Decision \*\*\*

No Additional Data Packages

## \*\*\* Data Package Instructions \*\*\*

Please review enclosed information to determine if proposed technical is similar enough to 524-420 for its generic database to be used to support registration. Enclosed are company appl, letter, data matrix, proposed and cited CSFs and labels and MRIDs 476865401-11, 13, 14; 47697201,02



MRID	MRID Status	Citation Reference	Guideline
47685401		Mhatre, V.; Chaudhari, R. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC1. Unpublished study prepared by Excel Crop Care Limited. 160 p.	830.1550/Product Identity and composition
47685401		Mhatre, V.; Chaudhari, R. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC1. Unpublished study prepared by Excel Crop Care Limited. 160 p.	830.1600/Description of materials used to produce the product
47685401		Mhatre, V.; Chaudhari, R. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC1. Unpublished study prepared by Excel Crop Care Limited. 160 p.	830.1620/Description of production process
47685401		Mhatre, V.; Chaudhari, R. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC1. Unpublished study prepared by Excel Crop Care Limited. 160 p.	830.1670/Discussion of formation of impurities
47685402		Mandava, N. (2009) Glyphosate Technical: Volume 2: Amended Report: Product identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC2, NUF0394. Unpublished study prepared by Mandava Associates. 135 p.	830.1700/Preliminary analysis
47685403		Mandava, N. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 2A: Product Analysis and Certified Limits. Project Number: REPAR/GLYPHO/TECH/PC2. Unpublished study prepared by Mandava Associates. 69 p.	830.1700/Preliminary analysis
47685403		Mandava, N. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 2A: Product Analysis and Certified Limits. Project Number: REPAR/GLYPHO/TECH/PC2. Unpublished study prepared by Mandava Associates. 69 p.	830.1750/Certified limits
47685403		Mandava, N. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 2A: Product Analysis and Certified Limits. Project Number: REPAR/GLYPHO/TECH/PC2. Unpublished study prepared by Mandava Associates. 69 p.	830.1800/Enforcement analytical method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6302/Color
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6303/Physical state
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6304/Odor
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6313/Stability to sunlight, normal and elevated temperatures, metals, and metal ions
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6314/Oxidizing or reducing action
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6315/Flammability
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7000/pH of water solutions or suspensions
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7050/UV/Visible absorption
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7200/Melting point/melting range
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7300/Density/relative density



MRID	MRID Status	Citation Reference	Guideline
47685401		Mhatre, V.; Chaudhari, R. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC1. Unpublished study prepared by Excel Crop Care Limited. 160 p.	830.1550/Product Identity and composition
47685401		Mhatre, V.; Chaudhari, R. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC1. Unpublished study prepared by Excel Crop Care Limited. 160 p.	830.1600/Description of materials used to produce the product
47685401		Mhatre, V.; Chaudhari, R. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC1. Unpublished study prepared by Excel Crop Care Limited. 160 p.	830.1620/Description of production process
47685401		Mhatre, V.; Chaudhari, R. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC1. Unpublished study prepared by Excel Crop Care Limited. 160 p.	830.1670/Discussion of formation of impurities
47685402		Mandava, N. (2009) Glyphosate Technical: Volume 2: Amended Report: Product identity, Composition and Analysis: Volume 1: Product Identity and Composition. Project Number: REPAR/GLYPHO/TECH/PC2, NUF0394. Unpublished study prepared by Mandava Associates. 135 p.	830.1700/Preliminary analysis
47685403		Mandava, N. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 2A: Product Analysis and Certified Limits. Project Number: REPAR/GLYPHO/TECH/PC2. Unpublished study prepared by Mandava Associates. 69 p.	830.1700/Preliminary analysis
47685403		Mandava, N. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 2A: Product Analysis and Certified Limits. Project Number: REPAR/GLYPHO/TECH/PC2. Unpublished study prepared by Mandava Associates. 69 p.	830.1750/Certified limits
47685403		Mandava, N. (2009) Glyphosate Technical: Product Identity, Composition and Analysis: Volume 2A: Product Analysis and Certified Limits. Project Number: REPAR/GLYPHO/TECH/PC2. Unpublished study prepared by Mandava Associates. 69 p.	830.1800/Enforcement analytical method
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6302/Color
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6303/Physical state
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6304/Odor
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6313/Stability to sunlight, normal and elevated temperatures, metals, and metal ions
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6314/Oxidizing or reducing action
47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.6315/Flammability
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47685404		Mandava, N. (2009) Glyphosate Technical: Physical and Chemical Properties. Project Number: REPAR/GLYPHO/TECH/PC/3. Unpublished study prepared by Mandava Associates. 13 p.	830.7300/Density/relative density

# DATA PACKAGE BEAN SHEET

Date: 30-Mar-2009

Page 1 of 1

Decision #: 406729

DP #: (363573)

PRIA

Parent DP #:

Submission #: 845378

## \*\*\* Registration Information \*\*\*

Registration: 86004-R - GLYPHOSATE TECHNICAL

Company: 86004 - REPAR-GLYPHO, LLC

Risk Manager: RM 25 - James Tompkins - (703) 305-5697 Room# PY1 S-7337

Risk Manager Reviewer: Vickie Walters VWALTERS

Sent Date: \_\_\_\_\_

Calculated Due Date: 17-Sep-2009

Edited Due Date: \_\_\_\_\_

Type of Registration: Product Registration - Section 3

Action Desc: (R310) NEW PRODUCT;NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT CHEMIS1

Ingredients: \_\_\_\_\_

## \*\*\* Data Package Information \*\*\*

Expedite: ☐ Yes ☒ No

Date Sent: 30-Mar-2009

Due Back: \_\_\_\_\_

DP Ingredient: \_\_\_\_\_

DP Title: Repar-Glypho--Glyphosate Technical

CSF Included: ☒ Yes ☐ No

Label Included: ☒ Yes ☐ No

Parent DP #: \_\_\_\_\_

### Assigned To

Date In

Date Out

Organization: RD / TRB

Last Possible Science Due Date: 18-Aug-2009

Team Name: TOX

Science Due Date: \_\_\_\_\_

Reviewer Name: \_\_\_\_\_

Sub Data Package Due Date: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

## \*\*\* Studies Sent for Review \*\*\*

No Studies

## \*\*\* Additional Data Package for this Decision \*\*\*

Can be printed on its own page

## \*\*\* Data Package Instructions \*\*\*

Please review enclosed information to determine if proposed technical is similar enough to 524-420 for its acute tox and generic database to be used to support registration . Enclosed are company appl, letter, data matrix, proposed and cited CSFs and labels



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

11A53

March 17, 2009

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

OPP Decision Number: D-406729  
EPA File Symbol or Registration Number: 86004-R  
Product Name: GLYPHOSATE TECHNICAL  
EPA Application Receipt Date: 23-Feb-2009  
EPA Waiver Request Receipt Date: 23-Feb-2009  
EPA Company Number: 86004  
Company Name: REPAR-GLYPHO, LLC

N. BHUSHAN MANDAVA, PH.D.  
MANDAVA ASSOCIATES, LLC  
REPAR-GLYPHO, LLC  
1050 CONN. AVE., NW, STE 1000  
WASHINGTON, DC 20036-

SUBJECT: Approval of Waiver Request

Dear Registrant:

The Office of Pesticide Programs has approved your request for 75% waiver of the pesticide registration fee associated with the action referenced above. The decision review period for this action will begin on the date of this letter.

The Action has been identified as Action Code: R310

NEW PRODUCT;NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT  
CHEMISTRY;ACUTE TOXICITY;PUBLIC HEALTH PEST EFFICACY);

If you have any questions, please contact the Pesticide Registration Service Fee  
Ombudsman, at (703) 305-6249.

Sincerely,

Oscar Morales, Director  
Information Technology and Resources Management Division  
Office of Pesticide Programs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

11A53

March 17, 2009

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

OPP Decision Number: D-406729  
EPA File Symbol or Registration Number: 86004-R  
Product Name: GLYPHOSATE TECHNICAL  
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Office of Pesticide Programs

	<p align="center"><b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>  <b>Office of Pesticide Programs</b>  <b>Registration Division (7505P)</b>  <b>Ariel Rios Building</b>  <b>1200 Pennsylvania Ave., NW</b>  <b>Washington, D.C. 20460</b></p>	EPA Reg. Number: 86004-1	Date of Issuance:  15 2009
NOTICE OF PESTICIDE: <u>  x  </u> Registration <u>    </u> Reregistration (under FIFRA, as amended)		Term of Issuance: <b>Conditional</b>	
Name of Pesticide Product: <b>Glyphosate Technical</b>			
Name and Address of Registrant (include ZIP Code): <b>Repar-Glypho, LLC</b> <b>8070 Georgia Avenue, Suite 209</b> <b>Silver Spring, MD 20910</b>			
<p><b>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</b></p>			
<p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p>			
<p>This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:</p>			
<ol style="list-style-type: none"> <li>1. Submit and/or cite all data required for the registration/reregistration review of this product when the Agency requires all registrants of similar products to submit data.</li> <li>2. Make the following label changes: <ol style="list-style-type: none"> <li>A. Add the phrase "EPA Registration No.86004-1" to the label and the Establishment Number before you release the product for shipment.</li> <li>B. Add the "Net Contents" to the labeling prior to releasing this product for shipment.</li> </ol> </li> </ol>			
<p><b>COMMENTS CONTINUED ON PAGE 2 OF THIS NOTICE OF REGISTRATION.</b></p>			
Signature of Approving Official:		Date:	
James Tompkins Product Manager 25 Herbicide Branch Registration Division (7505P)		SEP 15 2009	

EPA Form 8570-6

page 2  
EPA Reg. No. 86004-1  
Comments Continued:

3. Submit the following data required for the registration of this pesticide product within 1 year from the date of this Notice of Registration:

<u>EPA Guideline Data Number</u>	<u>Guideline Descriptor</u>
830.6317	Storage Stability Study
830.6320	Corrosion Characteristics

Observations should be made at 0, 3, 6, 9 and 12 month intervals and submit the results electronically along with the hard copy.

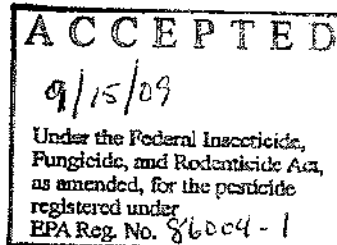
4. Submit to the EPA Analytical Laboratory, 701 Mapes Road, Fort Meade, MD 20755-5350 a validated enforcement analytical method (EPA Guidelines 830.1800), within 6 months from the date of this Notice of Registration.
5. Submit one (1) copy of the final printed labeling before you release this product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product under the enclosed stamped copy of the label constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Enclosure

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# Glyphosate Technical

For Manufacturing and Formulating Into Herbicides Only

## ACTIVE INGREDIENT:

Glyphosate ..... 97.3%  
 OTHER INGREDIENTS: ..... 2.7%  
 TOTAL: ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN**

## DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

First Aid	
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
IF SWALLOWED	Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.	
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Manufactured for:  
 Repar - Glypho, LLC  
 8070 Georgia Avenue / Suite 209  
 Silver Spring, MD 20910

EPA Reg. No. 86004- \_\_\_\_\_ EPA Est. No. \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALLONS

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**DANGER: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED.** Do not get in eyes or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

## ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Eliminator Systems (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## PHYSICAL or CHEMICAL HAZARDS

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

**DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS.** This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial turf, ornamental nursery, tree and forestry, residential sites and:

## ANNUAL AND PERENNIAL CROPS:

**CEREAL AND GRAIN CROPS** - Barley, Buckwheat, Millet (pearl, proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all types), Wild rice.

**CORN** - Field corn, Seed corn, Silage corn, Sweet corn and Popcorn

**COTTON**

**GINSENG** (Non-bearing)

**GRAIN SORGHUM** (Milo)

**HERBS AND SPICES** - Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Cardamom, Capar buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or Chinese parsley), Coriander seed (cilantro), Cosmery, Cilantro (leaf), Cilantro (seed), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Mioga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

**OIL SEED CROPS** - Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower.

**RUTABAGAS, DRY BEANS, PEAS, LENTILS, and CHICKPEAS**

**SOYBEANS**

**SUGAR CANE**

#### **VEGETABLE CROPS**

**Brassica Vegetables** - Broccoli, Chinese broccoli (gai lan), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

**Bulb Vegetables** - Garlic, Great headed garlic, Leek, Onion (dry bulb and green), Welsh onion, Shallot.

**Cucurbit Vegetables** - Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumbar, Gherkin, Edible gourd (includes hyotan, cucurza, hechima, Chinese okra), Melons (all), *Momordica* spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon.

**Leafy Vegetables** - Amaranth (Chinese spinach), Arugula (Rocket), Beet greens, Cardoon, Celery, Chinese celery, Cefuice, Chaya, Charvil, Edible-leaved chrysanthemum, Garland chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Florence fennel, Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (upland), Water spinach.

**Fruiting Vegetables** - Eggplant, Groundcherry (*Physalis* spp), Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato.

**Legume Vegetables (Succulent or Dried)** - Bean (*Lupinus*; includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (*Phaseolus*; includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (*Vigna*; includes adzuki bean, asparagus bean, blackeye pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum*; includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

**Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Galangal, Ginger, Ginseng, Horseradish, Leren, Kava (turnip-rooted), Parsley (turnip rooted), Parsnip, Potato, Radish, Oriental radish, Rutabaga, Salsify, Black salsify, Spanish salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Wasabi, Yacon, Yam bean, True yam.**

**MISCELLANEOUS CROPS** - Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry, Sugar beet.

#### **TREE, VINE, AND SHRUB CROPS**

##### **CUT STUMP (tree crops) -**

**Citrus Trees:** Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo (Ugli), Tangor.

**Fruit Trees:** Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince.

**Nut Trees:** Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (black, English).

**BERRY CROPS** - Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, otalieberry, Oregon evergreen berry, phenomenalberry, rangeberry,

ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Salal. (Optional Crop: Raspberry (black, red)).

**CITRUS** - Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (all), Pummelo, Satsuma Mandarin, Tangelo (ugh), Tangor.

**Miscellaneous Tree Food Crops** - Cactus (fruit and pads), Palm (heart, leaves), Palm (oil).

**FORESTRY USE AND CHRISTMAS TREES** - Pine, Poplar, Eucalyptus, Christmas trees.

**Pome Fruit** - Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince.

**Stone Fruit** - Apricot, Cherry (sweet, tart), Nectarine, Olive, Peach, Plum/Prune (all varieties), Plumcot.

**Tree Nuts** - Almond, Beechnut, Boldnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (black, English)

**Tropical and Subtropical Trees and Fruits** - Ambarella, Atemoya, Avocado, Banana, Barbados cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Ilama, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (gené), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Puasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambe.

**VINE CROPS** - Grapes (raisin, table, wine) Hops, Kiwi, Passion fruit.

#### **PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS**

Alfalfa, Clover, and Other Forage Legumes - Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefol, Velvet bean, Vetch (all types).

**GRASS SEED OR SOD PRODUCTION** - Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and those listed in the "CEREAL AND GRAIN CRDPS" section of this label.

**ROUNDUP READY CROPS** - Roundup Ready Alfalfa, Roundup Ready Canola (Spring), Roundup Ready Canola (Winter), Roundup Ready Corn, Roundup Ready Cotton, Roundup Ready Flex Cotton, Roundup Ready Soybeans, Roundup Ready Sugar Beet

#### **TURF AND ORNAMENTAL SITES**

**NON-CROP AREAS AND INDUSTRIAL SITES** - Airports/landing fields, apartment complexes commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, driveways, dry ditches, dry canals, fence rows, golf courses, greenhouses, highways/roadsides, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, paved areas, parks, parking areas, pastures, petroleum tank farms and pumping installations, plant nurseries, public areas, railroads, rangeland, rights-of-way, roadsides, shadchouses, sod or turf seed farms, storage areas, sports complexes, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management areas.

#### **STORAGE AND DISPOSAL**

Do not contaminate water, food or feed or seed by storage and disposal.

**PESTICIDE STORAGE:** Store in original container only, in a cool, dry, locked area. Store separately from other pesticides, fertilizers, food or feed to prevent contamination.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

**CONTAINER DISPOSAL:** Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty



container into formulation equipment. This container may be returned for refilling with this product. If not refilled, dispose of empty container in a sanitary landfill or by incineration.

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#### CONDITIONS OF SALE AND LIMITED WARRANTY

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REPAR – GLYPHO, LLC warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use herein described when used in accordance with the directions for use. The Directions For Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of REPAR – GLYPHO, LLC or the SELLER. To the extent consistent with applicable law, REPAR – GLYPHO, LLC shall not be liable for the consequential, special or indirect damages resulting from the handling or use of this product. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

Except as expressly provided herein, Repar – Glypho, LLC makes no warranties, guarantees, or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage.



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 86004-R	2. EPA Product Manager Jim Tompkins	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Glyphosate Technical	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Repar-Glypho, LLC 8070 Georgia Avenue, Suite 209 Silver Spring, MD. 20910 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(ii), my product is similar or identical in composition and labeling to: EPA Reg. No. 524-420 Product Name Glyphosate	

**Section - II**

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

- 1) Submission of revised draft label with corrections in support of registration for Glyphosate Technical (EPA Reg. No.: 86004-R)  
2) Please direct all correspondence to: Mandava Associates, LLC; 1050 Connecticut Avenue, NW / Suite 1000; Washington, D.C. 20036  
3) The contact Person fax number is (202) 223 - 0141 and e-mail address is: mandava@compuserve.com.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted				Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 50 Kg, 100 Kg		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper, glued Stenciled			<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name N. Bhushan Mandava		Title Agent for Repar-Glypho, LLC	
		Telephone No. (Include Area Code) (202) 223-1424	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received  (Stamped)
2. Signature 		3. Title Agent for Repar-Glypho, LLC	
4. Typed Name N. Bhushan Mandava		5. Date 09/14/09	

See X's to ed. 1.

Reviewed: 09-04-09  
(2nd time)

Eugene Wilson

# Glyphosate Technical

For Manufacturing and Formulating Into Herbicides Only

Receiving  
Notland  
9/4/09**ACTIVE INGREDIENT:**

Glyphosate ..... 97.3%  
 OTHER INGREDIENTS: ..... 2.7%  
 TOTAL: ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN****DANGER / PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

First Aid	
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
IF SWALLOWED	Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.	
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Manufactured for:  
 Repar - Glypho, LLC  
 8070 Georgia Avenue / Suite 209  
 Silver Spring, MD 20910

EPA Reg. No. 86004-\_\_\_\_\_ EPA Est. No: \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALLONS

**PRECAUTIONARY STATEMENTS****Hazards to Humans and Domestic Animals**

**DANGER: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED.** Do not get in eyes or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

**ENVIRONMENTAL HAZARDS**

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Eliminator Systems (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**PHYSICAL or CHEMICAL HAZARDS**

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS. This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

**DIRECTIONS FOR USE**

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial turf, ornamental nursery, tree and forestry, residential sites and:

**ANNUAL AND PERENNIAL CROPS:**

**CEREAL AND GRAIN CROPS** - Barley, Buckwheat, Millet (pearl, proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all types), Wild rice.

**CORN** - Field corn, Seed corn, Silage corn, Sweet corn and Popcorn

**COTTON**

**GINSENG** (Non-bearing)

**GRAIN SORGHUM** (Milo)

**HERBS AND SPICES** - Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or Chinese parsley), Coriander seed (cilantro), Costmary, Cilantro (leaf), Cilantro (seed), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Mioga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Penilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

**OIL SEED CROPS** - Borage, Buffalo noun (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower.

**RUTABAGAS, DRY BEANS, PEAS, LENTILS, and CHICKPEAS**

**SOYBEANS**

**SUGAR CANE**

**VEGETABLE CROPS**

Brassica Vegetables - Broccoli, Chinese broccoli (gai lan), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

Bulb Vegetables - Garlic, Great-headed garlic, Leek, Onion (dry bulb and green), Welsh onion, Shallot.

Cucurbit Vegetables - Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza, hechima, Chinese okra), Melons (all), Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon.

Leafy Vegetables - Amaranth (Chinese spinach), Arugula Croquette), Beet greens, Cardoon, Celery, Chinese celery, Celluce, Chaya, Chervil, Edible-leaved chrysanthemum, Garland chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Florence fennel, Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (upland), Water spinach.

Fruiting Vegetables - Eggplant, Groundcherry (Physalis spp), Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato.

Legume Vegetables (Succulent or Dried) - Bean (Lupinus: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (Phaseolus: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (Vigna: includes adzuki bean, asparagus bean, blackeyed pea, caljang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (Pisum: includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Galangal, Ginger, Ginseng, Horseradish, Leren, Kava (turnip-rooted), Parsley (turnip rooted), Parsnip, Potato, Radish, Oriental radish, Rutabaga, Salsify, Black salsify, Spanish salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Wasabi, Yacon, Yam bean, True yam.

MISCELLANEOUS CROPS - Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry, Sugar beet.

#### TREE, VINE, AND SHRUB CROPS

##### CUT STUMP (tree crops) -

Citrus Trees: Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo (Ugli), Tangor.

Fruit Trees: Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince.

Nut Trees: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (black, English).

BERRY CROPS - Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Salal. [Optional Crop: Raspberry (black, red)].

CITRUS - Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (all), Pummelo, Satsuma Mandarin, Tangelo (ugh), Tangor.

Miscellaneous Tree Food Crops - Cactus (fruit and pads), Palm (heart, leaves), Palm (oil).

Non-Food Tree Crops - Pine, Poplar, Eucalyptus, Christmas trees, (All other non-food tree crops)

Pome Fruit - Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince.

Stone Fruit - Apicot, Cherry (sweet, tart), Nectarine, Olive, Peach, Plum/Prune (all types), Plumcot.

Tree Nuts - Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (black, English)

Tropical and Subtropical Trees and Fruits - Ambarella, Atemoya, Avocado, Banana, Barbados cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Ilima, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (genie), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambe.

VINE CROPS - Grapes (raisin, table, wine) Hops, Kiwi, Passion fruit.

#### PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS

Alfalfa, Clover, and Other Forage Legumes Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefoil, Velvet bean, Vetch (all types).

GRASS SEED OR SOD PRODUCTION - Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and those listed in the "CEREAL AND GRAIN CROPS" section of this label.

#### RANGELANDS

ROUNDUP READY CROPS - Roundup Ready Alfalfa, Roundup Ready Canola (Spring), Roundup Ready Canola (Winter), Roundup Ready Corn, Roundup Ready Cotton, Roundup Ready Flex Cotton, Roundup Ready Soybeans, Roundup Ready Sugar Beet

TURF, AND ORNAMENTAL USES - Corn (volunteer), Panicum (Texas), Rye (Common), Sickelpod, Spanishneedles, Starbur (bristly Shattercane), Beggarweed (Florida), Bermudagrass, Dogbane (hemp), Dogfennel, Guineagrass, Johnsongrass, Milkweed, Nightshade (silverleaf), Pigweed (redroot), Ragweed (common), Ragweed (giant), Smutgrass, Sunflower, Thistle (Canada), Thistle (musk), Vaseygrass, Velvetlea

NON-CROP AREAS - Conservation Reserve Program (CRP) areas, ditch banks, driveways, dry ditches, dry canals, fencerows, golf courses, greenhouses, highways/roadsides, landscape areas, municipal sites, natural areas, ornamentals, paved areas, parks, parking areas, pastures, plant nurseries, public areas, rangeland, rights-of-way, roadsides, shadehouses, sod or turf seed farms, turfgrass areas, wildlife management areas.

INDUSTRIAL SITES - Use in Airports/landing fields, apartment complexes, commercial sites, industrial sites, lumber yards, manufacturing sites, office complexes, petroleum tank farms and pumping installations, railroads, storage areas, sports complexes, substations, utility sites, warehouse areas.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed or seed by storage and disposal.

PESTICIDE STORAGE: Store in original container only, in a cool, dry, locked area. Store separately from other pesticides, fertilizers, food or feed to prevent contamination.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

CONTAINER DISPOSAL: Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty container into formulation equipment. This container may be returned for refilling with this product. If not refilled, dispose of empty container in a sanitary landfill or by incineration.

## CONDITIONS OF SALE AND LIMITED WARRANTY

REPAR – GLYPHO, LLC warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use herein described when used in accordance with the directions for use. The Directions For Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of REPAR – GLYPHO, LLC or the SELLER. To the extent consistent with applicable law, REPAR – GLYPHO, LLC shall not be liable for the consequential, special or indirect damages resulting from the handling or use of this product. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

Except as expressly provided herein, Repar – Glypho, LLC makes no warranties, guarantees, or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage.

*implied ? X*

# ***MANDAVA ASSOCIATES, LLC***

CONSULTANTS IN SCIENCE, TECHNOLOGY AND REGULATORY AFFAIRS  
1050 CONNECTICUT AVENUE, N.W., SUITE 1000, WASHINGTON, DC 20036  
Telephone: (202)-223-1424/1747 · Fax: (202)-223-0141 · E-MAIL: [Mandava@compuserve.com](mailto:Mandava@compuserve.com)

Hand Delivered

September 2, 2009

Mr. Eugene M. Wilson/  
Mr. James Tompkins  
PM Team 25  
Herbicide Branch  
Registration Division (7504C)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Washington, D.C. 20460

SUBJECT: Revised Draft Labels for:  
Glyphosate Technical (EPA File Symbol: 86004-R)  
Glyphosate 62% SL (EPA File Symbol: 86004-L)  
Glyphosate 1.92% RTU (EPA File Symbol: 86004-E)

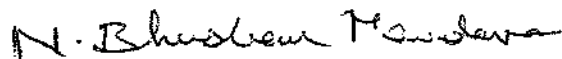
Company Name: Repar-Glypho, LLC

Dear Mr. Wilson and Mr. Tompkins:

We have revised the Draft Labels for Glyphosate Technical (EPA File Symbol: 86004-R), Glyphosate 62% SL (EPA File Symbol: 86004-L), and Glyphosate 1.92% RTU (EPA File Symbol: 86004-E).

Attached, please find the revised draft labels for the subject products.

Sincerely,



N. Bhushan Mandava, Ph.D., RAC  
Agent for Repar-Glypho, LLC

Enclosure

# *Olig - Reviewed 08-31-09 G. Wilson* Glyphosate Technical

For Manufacturing and Formulating Into Herbicides Only

*Rec'd 08/01/09*

*See Xs and notes & additions.*

## ACTIVE INGREDIENT:

Glyphosate ..... 97.3%  
OTHER INGREDIENTS: ..... 2.7%  
TOTAL: ..... 100.0%

KEEP OUT OF REACH OF CHILDREN

## DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### First Aid

IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
IF SWALLOWED	Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Manufactured for:  
Repar - Glypho, LLC  
8070 Georgia Avenue / Suite 209  
Silver Spring, MD 20910

EPA Reg. No. 86004-\_\_\_\_\_ EPA Est. No: \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALLONS

### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

DANGER: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED. Do not get in eyes or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

### ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Eliminator Systems (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

### PHYSICAL or CHEMICAL HAZARDS

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS. This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

### DIRECTIONS FOR USE

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial turf, ornamental nursery, tree and forestry, residential sites and:

#### ANNUAL AND PERENNIAL CROPS:

CEREAL AND GRAIN CROPS - Barley, Buckwheat, Millet (pearl, proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all types), Wild rice, Red rice.

CORN - Field corn, Seed corn, Silage corn, Sweet corn and Popcorn

COTTON

FALLOW SYSTEMS

GRAIN SORGHUM (Milo)

✓ HERBS AND SPICES - Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or Chinese parsley), Coriander seed (cilantro), Costmary, Cilantro (leaf), Cilantro (seed), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Mioga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

✓ OIL SEED CROPS - Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower.

✓ SOYBEANS

✓ SUGAR CANE

✓ VEGETABLE CROPS

Brassica Vegetables - Broccoli, Chinese broccoli (gai lan), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

✓ Bulb Vegetables - Garlic, Great-headed garlic, Leek, Onion (dry bulb and green), Welsh onion, Shallot.

→ Rutabagas, Dry Beans, Peas, Lentils  
Chickpeas.

XXX

31

✓ Cucurbit Vegetables and Fruits - Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza, hechima, Chinese okra), Melons (all), Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon.

✓ Leafy Vegetables - Amaranth (Chinese spinach), Arugula Croquette, Beet greens, Cardoon, Celery, Chinese celery, Celtuce, Chaya, Chervil, Edible-leaved chrysanthemum, Garland chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Doku-dami, Endive (escarole), Florence fennel, Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhu-barb, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (upland), Water spinach.

✓ Fruiting Vegetables - Eggplant, Groundcherry (Physalis spp), Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato.

✓ Legume Vegetables (Succulent or Dried) - Bean (Lupinus: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (Phaseolus: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (Vigna: includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (Pisum: includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

✓ Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Galangal, Ginger, Ginseng, Horseradish, Leren, Kava (turnip-rooted), Parsley (turnip rooted), Parsnip, Potato, Radish, Oriental radish, Rutabaga, Salsify, Black salsify, Spanish salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Wasabi, Yacon, Yam bean, True yam.

✓ MISCELLANEOUS CROPS - Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry, Sugar beet.

### TREE, VINE, AND SHRUB CROPS

✓ PERENNIAL GRASS SUPPRESSION - perennial grasses such as bahiagrass, Bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass, and quackgrass that are grown as ground covers in tree and vine crops

✓ CUT STUMP (tree crops) -

✓ Citrus Trees: Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo (Ugli), Tangor.

✓ Fruit Trees: Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince.

✓ Nut Trees: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (black, English).

✓ BERRY CROPS - Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, Juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Salal. (Optional Crop: Raspberry (black, red)).

✓ CITRUS - Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (all), Pummelo, Satsuma Mandarin, Tangelo (ugli), Tangor.

✓ Miscellaneous Tree Food Crops - Cactus (fruit and pads), Palm (heart, leaves), Palm (oil).

✓ Non-Food Tree Crops - Pine, Poplar, Eucalyptus, Christmas trees, All other non-food tree crops.

✓ Pome Fruit - Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince.

✓ Stone Fruit - Apricot, Cherry (sweet, tart), Nectarine, Olive, Peach, Plum/Prune (all types), Plumcot.

✓ Tree Nuts - Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (black, English)

Tropical and Subtropical Trees and Fruits - Ambarella, Atemoya, Avocado, Banana, Barbados cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Ilama, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (genie), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomgranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambe.

BANANACIDE (Banana Only) *see pest X*

✓ VINE CROPS - Grapes (raisin, table, wine) Hops; Kiwi, Passion fruit.

✓ PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS

Alfalfa, Clover, and Other Forage Legumes - Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefoil, Velvet bean, Vetch (all types).

CONSERVATION RESERVE PROGRAM (CRP) - TYPES OF APPLICATIONS: Renovation (Rotating Out Of CRP), Site Preparation, Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Application.

✓ GRASS SEED OR SOD PRODUCTION - Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and those listed in the "CEREAL AND GRAIN CROPS" section of this label.

### RANGELANDS

ROUNDUP READY CROPS - Roundup Ready Alfalfa, Roundup Ready Canola (Spring), Roundup Ready Canola (Winter), Roundup Ready Corn, Roundup Ready Cotton, Roundup Ready Flex Cotton, Roundup Ready Soybeans, Roundup Ready Sugar Beet *see testing in Index*

NON-CROP USES AROUND THE WORLD - General Weed Control, Trim-and-Edge, Greenhouse/Shadehouse, Chemical Mowing, Cut Stump, Habitat Management.

INDUSTRIAL, TURF, AND ORNAMENTAL USES - Corn (volunteer), Panicum (Texas), Rye (Common), Sicklegod, Spanish Needles, Starbur (bristly Shattercane), Beggarweed (Florida), Bermudagrass, Dogbane (hemp), Dogfennel, Guineagrass, Johnsongrass, Milkweed, Nightshade (silverleaf), Pigweed (redroot), Ragweed (common), Ragweed (giant), Smutgrass, Sunflower, Thistle (Canada), Thistle (musk), Vaseygrass, Velvetlea

✓ FORESTRY SITE PREPARATION - Woody brush, Trees and Herbaceous weeds, and Forestry

GENERAL NON-CROP AREAS, INDUSTRIAL SITES - Use in areas such as airports/landing fields, apartment complexes, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, driveways, dry ditches, dry canals, tencerows, golf courses, greenhouses, highways/roadsides, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, paved areas, parks, parking areas, pastures, petroleum tank farms and pumping installations, plant nurseries, public areas, railroads, rangeland, rights-of-way, roadsides, shadehouses, sod or turf seed farms, storage areas, sports complexes, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management areas.



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### STORAGE AND DISPOSAL

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Do not contaminate water, food or feed or seed by storage and disposal.

**PESTICIDE STORAGE:** Store in original container only, in a cool, dry, locked area. Store separately from other pesticides, fertilizers, food or feed to prevent contamination.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

**CONTAINER DISPOSAL:** Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty container into formulation equipment. This container may be returned for refilling with this product. If not refilled, dispose of empty container in a sanitary landfill or by incineration.

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### CONDITIONS OF SALE AND LIMITED WARRANTY

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REPAR – GLYPHO, LLC warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use herein described when used in accordance with the directions for use. The Directions For Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of REPAR – GLYPHO, LLC or the SELLER. To the extent consistent with applicable law, REPAR – GLYPHO, LLC shall not be liable for the consequential, special or indirect damages resulting from the handling or use of this product. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

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Except as expressly provided herein, Repar – Glypho, LLC makes no warranties, guarantees, or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT - 6 2003

*cited*  
OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Mr. Stephen J. Wratten  
Monsanto Company  
600 13<sup>th</sup> Street, N. W., Suite 660  
Washington, DC 20005

Dear Mr. Wratten:

Subject: Glyphosate (Update First Aid Statement and Other Changes)  
EPA Registration No. 524-420  
Application Dated July 7, 2003

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provide your make the following changes.

-Under Storage and Disposal revise "Storage" to read "Pesticide Storage" and "Disposal" to read "Pesticide Disposal".--

Submit three (3) copies of your final printed labeling incorporating the above changes. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

*James A. Tompkins*  
James A Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)

# GLYPHOSATE

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

### DANGER!

**CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED.** Do not get in eyes or on clothing. Avoid breathing dust. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash contaminated clothing before reuse.

**FIRST AID:** Call a poison control center or doctor for treatment advice.

**IF IN EYES** Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

**IF SWALLOWED** Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF INHALED** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as Glyphosate, EPA Reg. No. 524-420. You may also contact (314) 694-4000, call collect day or night, for emergency treatment information.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

### Environmental Hazards

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### Physical or Chemical Hazards

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

**DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS.** This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

### DIRECTIONS FOR USE

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial, turf, ornamental nursery, tree and forestry, and residential sites; or some or all of the following food cropping systems: root, bulb, and tuber vegetables, leafy vegetables, brassica and cucurbit vegetables, succulent and dried legume vegetables, fruiting vegetables, fruits (citrus, pome, stone, various tropical fruits, small fruits and

berries), tree nuts, cereal grains, animal grasses and forages, herbs, spices, and food crops including asparagus, avocado, banana, canola, coffee, cotton, coconut, cranberry, dates, flax, grapes, kiwi, lychee, mints, olive, palms, peanut, pineapple, soybeans, strawberry, sugar beet, sugarcane, and tea.

### Storage and Disposal

**STORAGE:** Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Keep container closed to prevent spills and contamination.

**DISPOSAL:** Wastes of this product may cause irreversible eye damage and may be dangerous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Emptied container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty bag into formulation equipment. This bag may be returned for refilling with this product. If not refilled, dispose of empty bag in a sanitary landfill or by incineration.

### ACTIVE INGREDIENT:

N-(phosphonomethyl)glycine..... 96.3%

OTHER INGREDIENTS:..... 3.7%

100.0%

### LIMIT OF WARRANTY AND LIABILITY

Monsanto Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from Monsanto Company.

EPA Reg. No. 524-420

ACCEPTED

with COMMENTS

In EPA Letter Dated: NET

lb.

OCT - 6 2003

EPA Est. 524-LA-1 ☐ 524-1A-1 ☐

LOT NO.

PACKER

© [data] MONSANTO COMPANY, ST. LOUIS, MISSOURI 63167, U.S.A.

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-420

[print plate]

# ***MANDAVA ASSOCIATES, LLC***

CONSULTANTS IN SCIENCE, TECHNOLOGY AND REGULATORY AFFAIRS  
1050 CONNECTICUT AVENUE, N.W., SUITE 1000, WASHINGTON, DC 20036  
Telephone: (202)-223-1424/1747 · Fax: (202)-223-0141 · E-MAIL: [Mandava@compuserve.com](mailto:Mandava@compuserve.com)

Hand Delivered

August 28, 2009

Mr. Eugene M. Wilson/  
Mr. James Tompkins  
PM Team 25  
Herbicide Branch  
Registration Division (7504C)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Washington, D.C. 20460

SUBJECT: Revised Draft Label for Glyphosate Technical  
Product Name: **Glyphosate Technical**  
Company Name: Repar-Glypho, LLC  
EPA File Symbol: 86004-R

Dear Mr. Wilson and Mr. Tompkins:

We have revised the Draft Label for Glyphosate Technical (EPA File Symbol: 86004-R) to include all the crops listed in end-use products.

Attached, please find the revised draft label for glyphosate technical and also the EPA application (EPA Form 8570-1) for your review.

Sincerely,

*N. Bhushan Mandava*

N. Bhushan Mandava, Ph.D., RAC  
Agent for Repar-Glypho, LLC

Enclosure



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
Amendment  
☒ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number 86004-R	2. EPA Product Manager Jim Tompkins	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Glyphosate Technical	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Repar-Glypho, LLC 8070 Georgia Avenue, Suite 209 Silver Spring, MD. 20910 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. 524-420 Product Name Glyphosate	

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input checked="" type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

- 1) Submission of revised draft label with update of the use sites in support of registration for Glyphosate Technical (EPA Reg. No.: 86004-R)  
2) Please direct all correspondence to: Mandava Associates, LLC; 1050 Connecticut Avenue, NW / Suite 1000; Washington, D.C. 20036  
3) The contact Person fax number is (202) 223 - 0141 and e-mail address is: mandava@compuserve.com.

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
				<input type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted					
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 50 Kg, 100 Kg, 150 Kg		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name N. Bhushan Mandava	Title Agent for Repar-Glypho, LLC	Telephone No. (Include Area Code) (202) 223-1424
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received  (Stamped)
2. Signature N. Bhushan Mandava	3. Title Agent for Repar-Glypho, LLC	
4. Typed Name N. Bhushan Mandava	5. Date August 28, 2009	



To: "Bhushan Mandava" <mandava@compuserve.com>  
Cc:  
Bcc:  
Subject: Re: Glyphosate Technical Label

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Bhushan:

I have not reviewed the proposed labeling yet, but will in next few days. The use sites must all be on the end-use product labeling. I assume that you took the use-sites from the labeling of the end-use product. If so, it will be accepted.

In the warranty statement's reference to "Repar Corporation" must be revised to reflect the name: "Repar-Glypho, LLC" as written on page 1 or 3. Please corrected this on the 3 copies you submit under EPA Form 8570-1

Regards

"Bhushan Mandava" Eugene: 08/26/2009 10:06:04 PM

From: "Bhushan Mandava" <mandava@compuserve.com>  
To: Eugene Wilson/DC/USEPA/US@EPA  
Date: 08/26/2009 10:06 PM  
Subject: Glyphosate Technical Label

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Eugene:

Here is the revised label (as pdf file) for Glyphosate Technical label (EPA File Symbol: 86004-R) as per your suggestions which includes all the uses from the 41% label. Please also note that we changed the ingredient composition on the label as recommended by the product chemistry reviewer. If you need, I will send you the WORD file.

Thank you for your cooperation, advice and assistance.

Best Regards,

Bhushan

N. Bhushan Mandava  
Mandava Associates, LLC  
1050 Connecticut Avenue, N.W.  
Suite 1000  
Washington, D.C. 20036  
Tel: (202) 223 - 1424  
Fax: (202) 223 - 0141

\*\*\*\*\*  
\*\*\*\*\*

Notice: This E-mail (including attachments) is covered by the Electronic Communications Privacy Act, 18 U.S.C. §§2510-2521, is confidential and may be legally privileged. If you are not the intended recipient, you are hereby

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Please reply to the sender that you have received the message in error and then delete it. Thank you.

\*\*\*\*\*

\*\*\*\*\*

[attachment "Repar Glyphosate Technical Label (08-26-09).pdf" deleted by Eugene  
Wilson/DC/USEPA/US]

Received  
Northland  
9/1/09

DATE OUT: 18/AUG/2009

**PRODUCT CHEMISTRY REVIEW OF: A TECHNICAL GRADE TGAI [X]**

DP BARCODE: 368227      MRID : None      FILE SYMBOL No. 86004-R

PRODUCT NAME: Glyphosate Technical      COMPANY NAME: Repar-Glypho, LLC

PPC OF THIS TGAI 417300

DECISION NO.: 406729

FROM: Sami Malak, Chemist *S. Malak*  
Technical Review Branch/RD (7505P) *SPB*

*8/19/09*

TO: RM 25 James Tompkins/James Tompkins  
Herbicide Branch/RD (7505P)

**INTRODUCTION:**

In a letter dated 16/AUG/2009, the applicant responded to a previous product chemistry memorandum (DP #363572, S. Malak, 04/AUG/2009) and submitted a revised basic CSF dated 16/AUG/2009.

**FINDINGS:**

1. The submitted revised basic CSF for subject product dated 16/AUG/2009 was completed in compliance with the instructions in a previous product chemistry memorandum (DP#363572, S. Malak, 04/AUG/2009), also as discussed in a meeting with the applicant on 13/AUG/2009.
2. It is our assessment that the subject product is substantially similar in composition to glyphosate, Reg. No. 524-420.

**CONCLUSION:**

1. From the product chemistry view point the subject product is substantially similar in composition to glyphosate, Reg. No. 524-420.
2. The submitted revised basic CSF dated 16/AUG/2009 is acceptable. It must supersede the previously submitted basic CSF dated 09/FEB/2009.

**NOTE TO RM:** Outstanding deficiencies required for registration of subject product:

1. Product's storage stability and corrosion characteristics, GRN's 830.6317 & 830.6320, respectively.
2. For consistency with that in the revised basic CSF, the label claim nominal concentration must be revised from the previous claim of 96.3% to 97.32%.

*Revised from  
to 97.3*

cc::S. Malak and Database File (Reg. No. 86004-Rb).  
7505P:RD:TRB:PY-7347:s.m.:04/AUG/2009:703-308-9365:<86004-Ra>04-Rb>.



Received  
N. [unclear]  
8/24/09



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

TECHNICAL REVIEW BRANCH  
SIMILARITY CLINIC DETERMINATION

18/AUG/2009

MEMORANDUM

Subject: Name of Pesticide Product: Glyphosate Technical  
EPA Reg. No. /File Symbol: 86004-R  
DP Barcode: D363573  
Decision No: 406729  
Action Code: R310  
PC Code: 417300 (glyphosate)

From: Eugenia McAndrew, Biologist *E. McAndrew*  
Technical Review Branch *M. Hasler*  
Registration Division (7505P) *Team leader - Tox*

To: Vickie Walters/James Tompkins, RM Team 25  
Herbicide Branch  
Registration Division (7505P)

Applicant: Repar-Glypho, LLC  
8070 Georgia Avenue, Suite 209  
Silver Spring, MD 20910

FORMULATION FROM LABEL:

<u>Active Ingredient(s):</u>	<u>% by wt.</u>
	96.3
<u>Inert Ingredient(s):</u>	<u>3.7</u>
Total:	100.0%

**ACTION REQUESTED:** The Risk Manager requests: Please review enclosed information to determine if proposed technical is similar enough to 524-420 for its acute and generic database to be used to support registration. Enclosed are company appl, letter data matrix, proposed and cited CSFs and labels.

**BACKGROUND:** Repar-Glypho, LLC has applied for registration of Glyphosate Technical, EPA File Symbol 86004-R, claiming similarity to Glyphosate, EPA Reg. No. 524-420. Both are technical grade products for manufacturing use only. The Registrant is using the cite-all method of data support to satisfy the acute toxicity data requirements.

A search of the OPP electronic databases shows that six acute toxicity studies were submitted to support the reregistration of the cited product, 524-420. These studies were reviewed and classified as acceptable in a prior Precautionary Review Section/Registration Support Branch memo (Perry; D211738; 17/APR/1996).

**RECOMMENDATIONS:** TRB has evaluated the formulations of the proposed product, 86004-R, and the cited product, 524-420, and has determined that the two products are substantially similar.

The acute toxicity profile for the proposed product, Glyphosate Technical, EPA File Symbol 86004-R, is as follows:

acute oral toxicity	IV	cited	EPA Reg. No. 524-420
acute dermal toxicity	IV	cited	EPA Reg. No. 524-420
acute inhalation toxicity	III	cited	EPA Reg. No. 524-420
primary eye irritation	I	cited	EPA Reg. No. 524-420
primary skin irritation	IV	cited	EPA Reg. No. 524-420
dermal sensitization	negative	cited	EPA Reg. No. 524-420

The proposed basic CSF dated August 16, 2009 has been approved by the TRB Product Chemistry Team (Malak; 18/AUG/2009).

This memorandum pertains only to the decision concerning whether the subject product is similar to the cited product from an acute toxicological view point. For the purposes of this action, TRB has made no further determination of the adequacy of the toxicological data base or the precautionary label of the cited product.

**LABELING:** Based on the toxicity profile above, the following are the precautionary and first aid statements for this product as obtained from the Label Review System:

**PRODUCT ID #:** 086004-00001

**PRODUCT NAME:** Glyphosate Technical

**PRECAUTIONARY STATEMENTS**

**SIGNAL WORD:** DANGER

### **Hazards to Humans and Domestic Animals:**

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Corrosive. Causes irreversible eye damage. Harmful if inhaled. Do not get in eyes or on clothing. Avoid breathing dust. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

### **First Aid:**

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

If inhaled:

- Move the person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

The proposed label should contain a Note to Physician which addresses the category I Primary Eye Irritant toxicity. The following statements are suggested types of information that may be included, if applicable:

- technical information on symptomatology;
- use of supportive treatments to maintain life functions;
- medicine that will counteract the specific physiological effects of the pesticide;
- company telephone number to specific medical personnel who can provide specialized medical advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

DATE OUT: 18/AUG/2009

PRODUCT CHEMISTRY REVIEW OF: A TECHNICAL GRADE TGAI [X]  
DP BARCODE: 368227      MRID : None      FILE SYMBOL No. 86004-R  
PRODUCT NAME: Glyphosate Technical      COMPANY NAME: Repar-Glypho, LLC  
PPC OF THIS TGAI 417300      DECISION NO.: 406729

FROM: Sami Malak, Chemist *S. Malak*  
Technical Review Branch/RD (7505P) *STB*

TO: RM 25 James Tompkins/James Tompkins  
Herbicide Branch/RD (7505P)

**INTRODUCTION:**

In a letter dated 16/AUG/2009, the applicant responded to a previous product chemistry memorandum (DP #363572, S. Malak, 04/AUG/2009) and submitted a revised basic CSF dated 16/AUG/2009.

**FINDINGS:**

1. The submitted revised basic CSF for subject product dated 16/AUG/2009 was completed in compliance with the instructions in a previous product chemistry memorandum (DP#363572, S. Malak, 04/AUG/2009), also as discussed in a meeting with the applicant on 13/AUG/2009.
2. It is our assessment that the subject product is substantially similar in composition to glyphosate, Reg. No. 524-420.

**CONCLUSION:**

1. From the product chemistry view point the subject product is substantially similar in composition to glyphosate, Reg. No. 524-420.
2. The submitted revised basic CSF dated 16/AUG/2009 is acceptable. It must supersede the previously submitted basic CSF dated 09/FEB/2009.

**NOTE TO RM:** Outstanding deficiencies required for registration of subject product:

1. Product's storage stability and corrosion characteristics, GRN's 830.6317 & 830.6320, respectively.
2. For consistency with that in the revised basic CSF, the label claim nominal concentration must be revised from the previous claim of 96.3% to 97.32%.

cc::S. Malak and Database File (Reg. No.86004-Rb).  
7505P:RD:TRB:PY-7347:s.m.:04/AUG/2009:703-308-9365;<86004-Ra>.04-Rb>.

# MANDAVA ASSOCIATES, LLC

CONSULTANTS IN SCIENCE, TECHNOLOGY AND REGULATORY AFFAIRS  
1050 CONNECTICUT AVENUE, N.W., SUITE 1000, WASHINGTON, DC 20036  
Telephone: (202)-223-1424/1747 · Fax: (202)-223-0141 · E-MAIL: [Mandava@compuserve.com](mailto:Mandava@compuserve.com)

**VIA FACSIMILE: 703-308-9382**

August 16, 2009

Dr. Shyam Mathur  
Team Leader  
Technical Review Branch  
Registration Division (7505P)  
U.S. Environmental Protection Agency  
Washington, DC 20460

SUBJECT: CSF for Glyphosate Technical (EPA File Symbol: 86004-R)  
Company: Repar-Glypho, LLC

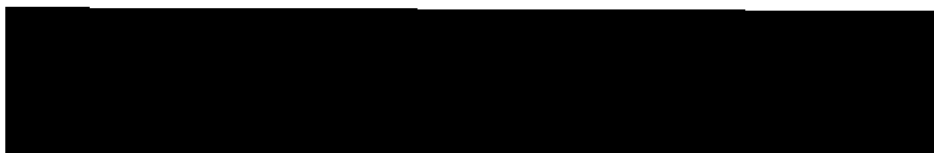
Dear Dr. Mathur:

As requested by Sami Malak, I revised the Confidential Statement of Formula (CSF) so that the values shown in the revised CSF are the values obtained from 5 batch analysis data. The total for all ingredients (AI and impurities) was about 98%. You said that the Agency accepts 98% for technical.

Accordingly, we have prepared the CSF which includes the AI and all impurities regardless of their content in glyphosate technical (EPA File Symbol: 86004-R).

## Consideration for Alternate CSF

It is our understanding of the regulations that the impurities are not reportable if they are present below 0.1% in the product unless they have the potential for toxicological concern. Therefore, in the alternate CSF we did not include the following the impurities:



This is because they are not considered to be of toxicological concern.

We are sending you both the versions for the CSF for your review. If you think that the alternate CSF is okay, please use it.

Sincerely,

A handwritten signature in black ink that reads "N. Bhushan Mandava".

N. Bhushan Mandava  
Agent for Repar-Glypho, LLC

Enclosure

\*Manufacturing process information may be entitled to confidential treatment\*

**MANDAVA ASSOCIATES, LLC**

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DESTINATION NO. 703-308-9382  
ATTENTION OF Dr. Shyam Mathur  
COMPANY OPP-RD-TRB  
NUMBER OF PAGES 4 (INCLUDING COVER)  
AUTHORIZED BY Bhushan Mandava  
DATE 08-16-09

**COMMENTS**

**DATE OUT: 04/AUG/2009**

**FEE: PRODUCT CHEMISTRY REVIEW OF: A TECHNICAL GRADE TGAI [X]**  
**DP BARCODE NOs.: 363572** **FILE SYMBOL No.: 86004-R**  
**MRIDs: 476854-01 to -11, -13, -14 + 476972-01, 02** **ACTION CODE: R310**  
**PRODUCT NAME: Glyphosate Technical** **FOOD& NON-FOOD USES [X]**  
**COMPANY NAME: Repar-Glypho. LLC** **DECISION NO.: 406729**  
**PPC OF THIS TGAI 417300**

**FROM:** Sami Malak, Chemist *Sami Malak*  
Technical Review Branch/RD (7505P) *SLM*

**TO:** RM 25 James Tompkins/Vickie Walters  
Herbicide Branch/RD (7505P)

**INTRODUCTION:**

In a letter dated 17/FEB/2009, the applicant requested a "me-too" registration of subject product claiming its similarity to glyphosate, Reg. No. 524-420. In support of this action, the applicant included/referenced product chemistry data using the selective method of support, a proposed basic CSF dated 09/FEB/2009, a proposed label, Certificate With Respect to Citation of Data, and Data Matrix.

**FINDINGS:**

1. The subject product, Glyphosate Technical, was produced for the applicant by Excel Crop Care Limited of Mumbai, India. The product, CAS #1071-93-6, is 96.3% pure in the form of N-(phosphonomethyl)glycine.
2. The subject product, a herbicide, will be used to formulate end-use herbicide products that will be used for weed control in crops & non-crops areas.
3. Substantial similarity of subject product to the cited product, glyphosate, Reg. No. 524-420, will be decided upon reviewing a revised CSF requested in Finding 9. (refer to Confidential Appendix A under Components of Potential Toxicological Concern).
4. The applicant should be advised to submit product's storage stability and corrosion characteristics two product chemistry data requirements of GRNs 830.6317 & 830.6320, respectively.
5. Except for the data gaps in Finding 3 above, the submitted/referenced product chemistry data is adequate and support "me-too" registration of subject product.
6. Adequate analytical method is available for enforcement. The method, included with this submission, MRID #476854-03, is reviewed in this memorandum.

7. The proposed analytical method will need to be validated by the EPA's laboratory. The applicant should be advised to send the method and samples to EPA's laboratory at the following address: EPA Analytical Chemistry Laboratory; 701 mapes Road; Fort Meade, MD 20755-5350.
8. The label claim nominal concentrations of 96.3% Glyphosate Technical is somewhat consistent with that in the proposed basic CSF dated 09/FEB/2009 listed at 96.5%. After revising the CSF (Finding 9 below), the label claim nominal concentration must be consistent with that in the CSF.
9. The proposed basic CSF dated 09/FEB/2009 will need some revisions (please refer to Confidential Appendix A under Needed CSF Revisions).

**CONCLUSIONS:**

1. Substantial similarity of subject product to the cited product, glyphosate, Reg. No. 524-420, will be decided upon reviewing a revised CSF requested in Finding 9 above.
2. After resolving Findings 4 & 7 above, the TRB will have no objections for a "me-too" registration of subject product. The proposed label and basic CSF dated 09/FEB/2009 will be accepted after resolving Finding 9 above.

**NOTE TO RM:**

Please note Finding 8 above.

**REVIEW OF PRODUCT CHEMISTRY DATA:**

1. A statement of data confidentiality dated 09/FEB/2009 was included with this submission claiming confidentiality of some of the submitted data on the basis of its falling within the scope of FIFRA§10(d)(1)(A), (B), or (C). Review of CBI data was moved to Confidential appendix A.
2. A GLP Statement dated 09/FEB/2009 was included with this submission to the effect that some of the submitted studies were conducted in compliance with the OECD Council N & the French Decree N, December 4, 2006.



*for profile of  
cited product*

MEMORANDUM

Subject: EPA Reg. No.: 524-420, acute toxicity reviews; DP  
Barcode# D211738, Case# 016787

From: Mark J. Perry, Biologist [S] MJP 4-17-96  
Precautionary Review Section  
Registration Support Branch  
Registration Division (7505W)

To: R. Taylor, PM-25 / E. Mitchell  
Registration Division (7505C)

Applicant: Monsanto Company  
Suite 1100  
700 14th St., N.W.  
Washington, DC 20005

FORMULATION FROM LABEL:

	<u>% by wt.</u>
<u>Active Ingredient(s):</u> Glyphosate, N-phosphono- methyl)-glycine .....	96.3
<u>Inert Ingredient(s):</u> .....	3.7
Total:	100%

BACKGROUND

Monsanto submitted acute oral, acute dermal, eye irritation, dermal irritation and dermal sensitization studies in response to the Glyphosate RED. The subject product, Glyphosate (EPA Reg. No. 524-420), has been placed in the "no batch" category of the RED. According to the Registrant a waiver for the acute inhalation requirement was previously granted by the Agency. An

acute inhalation waiver is still deemed appropriate for this product, however, a category III placement has been assigned.

The subject studies were performed by Food & Drug Research Laboratories and Bio/dynamics; the assigned MRID numbers are 408419-01 through 408419-04 and 433601215.

#### RECOMMENDATIONS

1. Acute Oral; Acceptable / Category IV
2. Acute Dermal; Acceptable / Category IV
3. Acute Inhalation; Waived / Category III

A category III placement has been assigned based on information obtained from the MSDS for technical glyphosate. If the Registrant does not agree with this placement, acute inhalation data may be submitted to the Agency in support of reclassification.

4. Eye Irritation; Acceptable / Category I

Due to the reported category I response, this study was not reviewed.

5. Dermal Irritation; Acceptable / Category IV
6. Dermal Sensitization; Unacceptable / Non-sensitizer

The subject study is not acceptable due to the low volume of test material employed at the induction and challenge exposures (0.2 ml) and the failure to moisten the actual test article. However, based on information obtained from the MSDS for glyphosate, a non-sensitizer classification has been assigned to this product.

#### LABELING

1. The appropriate signal word is "danger."

2. The recommended Statements of Practical Treatment are as follows:

**IF IN EYES:** Hold eyelids open and flush with steady, gentle stream of water for 15 minutes. Get medical attention.

**IF SWALLOWED:** Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

3. The recommended Precautionary Statements are as follows:

Corrosive. Causes irreversible eye damage. Harmful if inhaled. Do not get in eyes or on clothing. Wear goggles or face shield when handling. Avoid breathing vapor. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

EPA Reviewer: M. Perry \_\_\_\_\_ MJP \_\_\_\_\_, Date 4-17-96  
Review Section \_\_, Toxicology Branch \_\_ (7505W)  
EPA Secondary Reviewer: \_\_\_\_\_, Date \_\_\_\_\_  
Review Section \_\_, Toxicology Branch \_\_ (7505W)

DATA EVALUATION RECORD

STUDY TYPE: Acute Oral Toxicity - Rat  
OPPTS 870.1100 [81-1]

DP BARCODE: D211738  
P.C. CODE: 417300  
EPA REG. NO.: 524-420

SUBMISSION CODE:  
TOX. CHEM. NO.:

TEST MATERIAL (PURITY): Glyphosate (97.76% purity)

SYNONYMS: N-Phosphonomethylglycine

CITATION: Reagan, E., and J. Laveglia (1988) Volume 1: Acute oral toxicity study of glyphosate. Food & Drug Research Laboratories, Waverly, NY. Laboratory Study Number 88.2053.007. Sponsor Study Number FD-88-29. MRID 40841901. Unpublished.

SPONSOR: Monsanto Agricultural Company, St. Louis, MO

EXECUTIVE SUMMARY: In an acute oral toxicity study (MRID 40841901), a group of five Sprague-Dawley rats/sex was given a single oral dose of glyphosate (97.76% purity) at 5,000 mg/kg (limit concentration); the test substance was administered as a 50% (w:v) aqueous suspension. Animals were observed for clinical signs and mortality for up to 14 days postdosing.

Oral LD<sub>50</sub> Males= 5,000 mg/kg (observed)  
Females = 5,000 mg/kg (observed)

Glyphosate is classified as TOXICITY CATEGORY IV based on the observed LD<sub>50</sub> in both sexes.

All animals survived the 14-day observation period. One day following administration, clinical observations included diarrhea in 10/10 animals and a wet abdomen in 5/10 animals; these effects subsided in all animals by day 3. Additionally, abdominal alopecia was observed in 2/10 animals from 3-14 days. No treatment-related effect on body weight was observed, and gross necropsy of animals sacrificed after 14 days revealed no gross

abnormalities.

This acute oral study is classified acceptable, and satisfies the guideline requirement for an acute oral study (81-1) in the rat.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

## I. MATERIALS AND METHODS

### A. MATERIALS:

1. Test Material: Glyphosate  
Description: White powder  
Lot/Batch #: XLI-55  
Purity: 97.76%  
CAS #: 1071-83-6 (The Pesticide Manual, 10th Ed.)
2. Vehicle: Water, 50% (w:v) concentration
3. Test animals: Species: Rat  
Strain: Sprague-Dawley  
Age: Not specified  
Weight: 300-332 g males; 217-222 g females  
Source: Charles River Breeding Laboratories, Inc.,  
Wilmington, MA  
Acclimation period: ≥5 days  
Diet: NIH Open Formula 07, Rat and Mouse Diet, ad libitum  
Water: Tap water, ad libitum  
Housing: Not specified

### B. STUDY DESIGN and METHODS:

1. In life dates: April 5-19, 1988
2. Animal assignment and treatment: Following an overnight fasting period, five rats/sex were given a single oral dose of glyphosate at 5,000 mg/kg (limit concentration) by gavage. The rats were observed for signs of toxicity and mortality three times on the day of dosing, and twice daily thereafter for the remainder of the 14-day study; body weights were recorded at 0 (prior to dosing), 7, and 14 days. At 14 days, the surviving animals were sacrificed, necropsied, and examined for gross pathological changes.

3. Statistics: Not applicable to this study.

## II. RESULTS AND DISCUSSION:

A. Mortality: All animals survived the 14-day observation period.

Oral LD<sub>50</sub> Males = >5,000 mg/kg (observed)

Females = >5,000 mg/kg (observed)

B. Clinical observations: One day following administration, clinical observations included diarrhea in 10/10 animals and a wet abdomen in 5/10 animals; these effects subsided in all animals by day 3. Additionally, abdominal alopecia was observed in 2/10 animals from 3-14 days.

C. Body Weight: No treatment-related effect on body weight was observed, with overall (0-14 days) average increases of 24% for male animals and 15% for female animals.

D. Necropsy: Gross necropsy of animals sacrificed after 14 days revealed no gross abnormalities; individual results were not provided.

E. Deficiencies: Individual clinical observations were not provided. However, the summarized data provided were adequate in establishing the onset and duration of clinical effects, and this deficiency is considered minor.

Subdivision F guidelines specify that the observation period should be extended until all animals appear normal or 14 days, whichever is longer. Although alopecia was present in 2/10 animals at the termination of the experiment, this deficiency is considered minor since alopecia is a generally a secondary effect.

Although the age of the test animals was not specified, based on the body weights provided, they were probably young adult animals at study initiation, and this deficiency is considered minor.

Individual necropsy results were not provided. This deficiency is considered minor and should have no effect

on the Toxicity Category of glyphosate.

EPA Reviewer: M. Perry \_\_\_\_\_ MJP \_\_\_\_\_, Date 4-17-96  
Review Section \_\_\_, Toxicology Branch \_\_\_ (7505W)  
EPA Secondary Reviewer: \_\_\_\_\_, Date \_\_\_\_\_  
Review Section \_\_\_, Toxicology Branch \_\_\_ (7505W)

DATA EVALUATION RECORD

STUDY TYPE: Acute Dermal Toxicity - Rabbit  
OPPTS 870.1200 [81-2]

<u>DP BARCODE:</u> D211738	<u>SUBMISSION CODE:</u>
<u>P.C. CODE:</u> 417300	<u>TOX. CHEM. NO.:</u>
<u>EPA REG. NO.:</u> 524-420	

TEST MATERIAL (PURITY): Glyphosate (97.76% purity)

SYNONYMS: N-Phosphonomethylglycine

CITATION: Reagan, E., and J. Laveglia (1988) Volume 2: Acute dermal toxicity study of glyphosate. Food & Drug Research Laboratories, Waverly, NY. Laboratory Study Number 88.2053.008. Sponsor Study Number FD-88-29. June 8, 1988. MRID 40841902. Unpublished.

SPONSOR: Monsanto Agricultural Company, St. Louis, MO

EXECUTIVE SUMMARY: In an acute dermal toxicity study (MRID 40841902), five young adult New Zealand White rabbits/sex were dermally exposed to glyphosate (97.76% purity) at 5,000 mg/kg (>2X limit concentration) for 24 hours; the test substance was moistened with saline solution and applied uniformly to approximately 10% of the total body surface. Animals were observed for clinical signs and mortality for up to 14 days postdosing.

Dermal LD<sub>50</sub> Males= 5,000 mg/kg (observed)  
Females = 5,000 mg/kg (observed)

Glyphosate is classified as TOXICITY CATEGORY IV based on the LD<sub>50</sub> in both sexes.

A single female animal died at study day 13; otherwise, all other animals survived the 14-day observation period. Clinical effects



observed in the decedent animal prior to death included anorexia and diarrhea. The study author reported that these effects are characteristic of mucoid enteropathy, a condition occasionally seen in laboratory rabbits, and concluded the death was not treatment related. However, anorexia or diarrhea was also observed in single male animals. In addition, soft stools were observed in a single female animal. Treatment site effects were not addressed. The body weights of two male animals decreased between 0 and 7 days, and of a single male animal decreased between 7 and 14 days; overall (0-14 days), the body weight of one male animal decreased 3.6% and the remainder increased 3.0-12%. The body weights of all surviving females increased 6.5-17% during the study. Necropsy of the single decedent female animal revealed no gross abnormalities. Necropsy of animals sacrificed after 14 days revealed a white caseous substance on the lungs of a single male animal; otherwise, no gross abnormalities were observed.

This acute dermal study is classified acceptable, and satisfies the guideline requirement for an acute dermal study (81-2) in the rabbit.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

## I. MATERIALS AND METHODS

### A. MATERIALS:

1. Test Material: Glyphosate  
Description: White powder  
Lot/Batch #: XLI-55  
Purity: 97.76%  
CAS #: 1071-83-6 (The Pesticide Manual, 10th Ed.)
2. Vehicle: Physiological saline (ratio was not legible)
3. Test animals: Species: Rabbit  
Strain: New Zealand White  
Age: Young adult  
Weight: 2.36-2.49 kg males; 2.34-2.97 kg females  
Source: Ace Animals, Inc., Boyertown, PA  
Acclimation period: ≥5 days

Diet: NIH 09 Rabbit Ration, ad libitum

Water: Tap water, ad libitum

B. STUDY DESIGN and METHODS:

1. In life dates: April 11-25, 1988
2. Animal assignment and treatment: Fur from the shoulders to hindquarters (approximately 10% of the total body surface) of five animals/sex was clipped 1 day prior to dermal administration of glyphosate at 5,000 mg/kg (>2X limit concentration); the test substance was moistened with saline solution and applied uniformly to the clipped area. Each treatment site was covered with gauze and an occlusive binder consisting of plastic wrap and stockinette sleeve secured with tape. The bindings were removed 24 hours postdosing, and the test sites were gently wiped with clean gauze. The rabbits were observed for gross toxicity, behavioral changes, and mortality three times on the day of application and twice daily thereafter for the remainder of the 14-day study. Body weights were recorded at 0 (prior to application), 7, and 14 days postdosing. At 14 days, the surviving animals were sacrificed, necropsied, and examined for gross pathological changes.
3. Statistics: Not applicable to this study.

II. RESULTS AND DISCUSSION:

- A. Mortality: A single female animal died at study day 13; otherwise, all other animals survived the 14-day observation period.

Dermal LD<sub>50</sub> Males = >5,000 mg/kg (observed)

Females = >5,000 mg/kg (observed)

- B. Clinical observations: Clinical effects observed in the single decedent animal prior to death included anorexia (days 8-12) and diarrhea (days 9-12). The study author reported that these effects are characteristic of mucoid enteropathy, a condition occasionally seen in laboratory rabbits, and concluded the death was not treatment

related. However, anorexia or diarrhea was also observed in single male animals from 1-8 or 5-8 days, respectively. In addition, soft stools were observed in a single female animal from 11-13 days. Treatment site effects were not addressed.

- C. Body Weight: The body weights of two male animals decreased between 0 and 7 days, and of a single male animal decreased between 7 and 14 days; overall (0-14 days), the body weight of one male animal decreased 3.6% and the remainder increased 3.0-12%. The body weights of all surviving females increased 6.5-17% during the study.
- D. Necropsy: Necropsy of the single decedent female animal revealed no gross abnormalities. Necropsy of animals sacrificed after 14 days revealed a white caseous substance on the lungs of a single male animal; otherwise, no gross abnormalities were observed. Individual results were not provided.
- E. Deficiencies: Individual clinical effects were not provided. However, the summarized data provided were adequate in establishing the onset and duration of clinical effects, and this deficiency is considered minor.

Individual necropsy results were not provided. This deficiency is considered minor and should have no effect on the Toxicity Category of glyphosate.

EPA Reviewer: M. Perry \_\_\_\_\_ MJP \_\_\_\_\_, Date 4-17-96  
Review Section \_\_, Toxicology Branch \_\_ (7505W)  
EPA Secondary Reviewer: \_\_\_\_\_, Date \_\_\_\_\_  
Review Section \_\_, Toxicology Branch \_\_ (7505W)

DATA EVALUATION RECORD
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STUDY TYPE: Primary Dermal Irritation - Rabbit  
OPPTS 870.2500 [81-5]

DP BARCODE: D211738  
P.C. CODE: 417300  
EPA REG. NO.: 524-420

SUBMISSION CODE:  
TOX. CHEM. NO.:

TEST MATERIAL (PURITY): Glyphosate (97.76% purity)

SYNONYMS: N-Phosphonomethylglycine

CITATION: Reagan, E., and J. Laveglia (1988) Volume 4: Primary dermal irritation study of glyphosate. Food & Drug Research Laboratories, Waverly, NY. Laboratory Study Number 88.2053.010. Sponsor Study Number FD-88-29. June 8, 1988. MRID 40841904. Unpublished.

SPONSOR: Monsanto Agricultural Company, St. Louis, MO

EXECUTIVE SUMMARY: In a primary dermal irritation study (MRID 40841904), three young adult New Zealand White rabbits/sex were dermally exposed to 0.5 g of glyphosate (97.76% purity) for 4 hours. The test substance was moistened with saline solution, and applied to two intact sites/animal. Animals were observed for dermal irritation for up to 72 hours following patch removal. Irritation was scored by the Skin Reaction Code (Draize scale).

No dermal irritation was observed during the 72-hour observation period. The primary irritation score was 0. Other clinical effects were apparently not monitored.

In this study, glyphosate is not a dermal irritant, and is classified as TOXICITY CATEGORY IV for primary dermal irritation.

This study is classified as acceptable, and satisfies the

guideline requirement for a primary dermal irritation study (81-5) in the rabbit.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

## I. MATERIALS AND METHODS

### A. MATERIALS:

1. Test Material: Glyphosate  
Description: White powder  
Lot/Batch #: XLI-55  
Purity: 97.76%  
CAS #: 1071-83-6 (The Pesticide Manual, 10th Ed.)
2. Vehicle: Saline solution (1:1, w:v)
3. Test animals: Species: Rabbit  
Strain: New Zealand White  
Age: Young adult  
Weight: 2-3 kg  
Source: Ace Animals, Inc., Boyertown, PA  
Acclimation period: ≥5 days  
Diet: NIH 09 Rabbit Ration, ad libitum  
Water: Tap water, ad libitum

### B. STUDY DESIGN and METHODS:

1. In life dates: April 11-14, 1988
2. Animal assignment and treatment: Fur on the backs of three young adult animals/sex was clipped 1 day prior to dermal administration of 0.5 g glyphosate on two intact sites/animal (separated by the spinal column). Each application site was covered with a 1-in<sup>2</sup> gauze patch secured with Micropore tape, and each animal was fitted with a circular collar. The patches and collars were removed 4 hours following application, and the sites were gently wiped with clean gauze. The rabbits were observed for dermal irritation at 0.5, 24, 48, and 72 hours following patch removal. Erythema and edema were scored

separately using the Skin Reaction Code (Draize method). In addition, mortality was monitored twice daily.

## II. RESULTS AND DISCUSSION:

- A. Clinical observations: No dermal irritation was observed during the 72-hour observation period. The primary irritation score was 0. In this study, glyphosate is not a dermal irritant. Other clinical effects were apparently not monitored.
- B. Deficiencies: The sizes of the application areas were not directly specified. Since the sites were covered with 1-in<sup>2</sup> gauze patches, it is likely that the area was approximately this size, which fulfills guideline requirements.

Aside from treatment site observations, the animals were not monitored for other clinical effects. Since this deficiency does not affect the primary dermal Toxicity Category for glyphosate, it is considered minor.

EPA Reviewer: M. Perry \_\_\_\_\_ MJP \_\_\_\_\_, Date 4-17-96  
Review Section \_\_, Toxicology Branch \_\_ (7505W)  
EPA Secondary Reviewer: \_\_\_\_\_, Date \_\_\_\_\_  
Review Section \_\_, Toxicology Branch \_\_ (7505W)

DATA EVALUATION RECORD

STUDY TYPE: Dermal Sensitization - Guinea pig  
OPPTS 870.2600 [81-6]

<u>DP BARCODE</u> : D211738	<u>SUBMISSION CODE</u> :
<u>P.C. CODE</u> : 417300	<u>TOX. CHEM. NO.</u> :
<u>EPA REG. NO.</u> : 524-420	

TEST MATERIAL (PURITY): Glyphosate (99.7% purity)

SYNONYMS: N-Phosphonomethylglycine

CITATION: Auletta, C. (1983) A dermal sensitization study in guinea pigs. Bio/dynamics, Inc., East Millstone, NJ. Laboratory Study Number 4235-82. July 22, 1983. MRID 00137138. Unpublished.

SPONSOR: Monsanto Agricultural Company, St. Louis, MO

EXECUTIVE SUMMARY: In a dermal sensitization study (MRID 00137138) conducted with glyphosate (99.7% purity), five Hartley albino guinea pigs/sex were tested using methods based on those derived by Buehler. For the induction phase, application was repeated three times a week for 3 weeks (nine total applications). A concurrent positive control study was conducted in the same manner using 2,4-dinitrochlorobenzene (DNCB).

This study is classified as unacceptable, and does not satisfy the guideline requirements for a dermal sensitization study (81-6) in the guinea pig.

COMPLIANCE: Signed and dated GLP/Quality Assurance statements were not provided. This study was designated FIFRA Confidential Business Information (CBI).

I. MATERIALS AND METHODS

A. MATERIALS:

1. Test Material: Glyphosate  
Description: White powder  
Lot/Batch #: NBP 1782510  
Purity: 99.7%  
Bulk density: 0.5 g/cm<sup>3</sup> (The Pesticide Manual, 10th Ed.)  
CAS #: 1071-83-6 (The Pesticide Manual, 10th Ed.)
2. Positive and negative controls:  
2,4-Dinitrochlorobenzene (DNCB) was used for concurrent positive control data, and saline solution was used for concurrent negative control data; concentrations are specified in Table 1.
3. Test animals: Species: Guinea pig  
Strain: Hartley albino  
Age: Not specified  
Weight: 420-495 g males; 365-451 g females  
Source: Hazleton-Dutchland Laboratories, Denver, PA  
Acclimation period: 29 days  
Diet: Charles River Vitamin C-Fortified Guinea Pig Diet, ad libitum  
Water: Tap water, ad libitum

B. STUDY DESIGN and METHODS:

1. In life dates: January 24-26, 1983 (preliminary study) and January 26-March 2, 1983 (main study)
2. Animal assignment and treatment: Based on the results of preliminary experiments conducted with glyphosate at concentrations of 10, 25, 50, or 100% in paraffin oil, the test substance was administered undiluted for the definitive experiment.

The study was conducted based on the Buehler method [Buehler, E., Arch. Dermatol., 91: 171-175 (1965); Ritz, H. and E. Buehler, Current Concept in Cutaneous Toxicity, p. 25-40: Academic Press (1980)].

Animals were assigned to the test groups as outlined in Table 1. For the induction phase, fur on the



dorsal and lateral surfaces of each animal was clipped 1 day prior to dermal administration with 0.2 mL of glyphosate (equivalent to 0.1 g), DNCB solution, or saline solution. Application was administered to the right side of each animal, close to the midline. To enhance adsorption, the glyphosate-treated sites were moistened with 0.2 mL of saline solution, and each application site was covered with a 1-in<sup>2</sup> gauze patch and plastic wrap; the entire torso of each animal was then wrapped with Elastoplast adhesive bandage. The coverings were removed 6 hours following application, and the sites were wiped free of excess material. Application of each test material was repeated three times a week for 3 weeks (nine total applications).

For the eighth induction treatment, the laboratory was closed early due to a blizzard and the exposure period was decreased to 4 hours. For the fifth, seventh, and ninth DNCB induction treatments, the dosing site was moved to avoid application to necrotic skin.

Table 1. Treatment and control group assignment

Test Material	Purpose	No./sex	Concentration, %	
			Induction	Challenge
Glyphosate		5	100	100
Glyphosate	Naive control	3	--	100
DNCB	Positive control	5	0.5 <sup>a</sup>	0.3 <sup>b</sup>
DNCB	Naive control	3	--	0.3 <sup>b</sup>
Saline	Negative control	5	100	100
Saline	Naive control	3	--	100

<sup>a</sup>Vehicle: 80% ethanol

<sup>b</sup>Vehicle: acetone

A single challenge treatment was performed 14 days after the final induction treatment to the previously untreated left side of each animal and otherwise in the same manner as described. The guinea pigs were observed for viability twice daily and for dermal irritation 24 and 48 hours following each induction and challenge exposure. Skin reactions were scored according to the following scale:

- 0 - No reaction
- ± - Very slight erythema, usually nonconfluent
- 1 - Slight erythema usually confluent
- 2 - Moderate erythema
- 3 - Severe erythema with or without edema

Body weights of each animal were recorded on the day prior to the first induction treatment and at study termination.

## II. RESULTS AND DISCUSSION:

- A. Induction reactions and duration: Dermal irritation, characterized by very slight erythema was first observed 24 hours following the third induction treatment at 1/10 treatment sites. Irritation generally worsened following each successive induction treatment. Twenty-four hours following the ninth treatment, very slight to severe erythema was observed at 10/10 treatment sites; in addition, edema (6/10), necrosis (1/10), and desquamation (2/10) were observed.

No dermal irritation was observed at the negative control sites (saline solution).

- B. Challenge reactions and duration: No dermal response was observed in previously-induced animals following the single challenge treatment with glyphosate. Similarly, no dermal irritations were observed in naive control animals. Based on the results of this study, glyphosate is not a dermal sensitizer.

No dermal irritation was observed in the negative control sites for either the previously-induced or naive control animals.

- C. Positive control: Dermal irritation characterized by very slight erythema and edema was observed at most (data table was illegible) sites 48 hours following the first induction application and worsened in all animals by the fourth, sixth, and/or eighth applications to moderate to severe erythema with edema, eschar formation, and/or necrosis.

Twenty-four hours following a single challenge exposure to previously-induced animals, slight erythema was observed at 2/10 sites, moderate erythema was observed at 8/10 sites, and edema was observed at 7/10 sites. In comparison, 24 hours following application to naive control animals, very slight erythema was observed at 2/6 sites.

- D. Deficiencies: The subject study is not acceptable due to the low volume of test material employed at the induction and challenge exposures (0.2 ml) and the failure to moisten the actual test article. However, based on information obtained from the MSDS for glyphosate, a non-sensitizer classification has been assigned to this product.

In addition, for the eighth induction treatment, the laboratory was closed early due to a blizzard and the exposure period was decreased to 4 hours. This deficiency is considered minor, and should have no effect on the results of the study.

#### ACUTE TOX ONE-LINER

1. PC CODE: 103601
2. CURRENT DATE: 4/17/96

3. TEST MATERIAL: Glyphosate 96.3%

Study/Species/Lab/ Study#/Date	MRID No.	Results	Tox. Cat.	Core Grade
81-1, Rat, FDRL, FDRL88.2053.007, 6/8/88	408419-01	LD50 greater than 5000 mg/kg	IV	A
81-2, Rat, FDRL, FDRL 88.2053.008, 6/8/88	408419-02	LD50 = 5000 mg/kg	IV	A
81-4, Rabbit, FDRL, FDRL 88.2053.009, 6/8/88	408419-03	Irritation present at 21 days	I	V
81-5, Rabbit, FDRL, FDRL 88.2053.010, 6/8/88	408419-04	No irritation reported at 72 hrs.	IV	A
81-6, Guinea pig, Bio/dynamics, 4235- 82, 7/22/83	433601215	---	---	U

Core Grade Key:

A = Acceptable

S = Supplementary

U = Unacceptable

V = Self Validated

Received  
8/19/09

DATE OUT: 04/AUG/2009

FEE: PRODUCT CHEMISTRY REVIEW OF: A TECHNICAL GRADE TGAI [X]  
DP BARCODE NOs.: 365734 FILE SYMBOL No.: 86004-R  
MRIDs: 477397-01 ACTION CODE: R310  
PROUCT NAME: Glyphosate Technical FOOD& NON-FOOD USES [X]  
COMPANY NAME: Repar-Glypho, LLC DECISION NO.: 406729  
PPC OF THIS TGAI 417300

FROM: Sami Malak, Chemist  
Technical Review Branch/RD (7505P)

*S. Malak*  
*SRM 8/19/09*

TO: RM 25 James Tompkins/Eugene Wilson  
Herbicide Branch/RD (7505P)

### INTRODUCTION:

In a letter dated 29/APR//2009, the applicant submitted a product chemistry data requirement pertaining to solubility of subject product in organic solvents.

### FINDINGS:

Solubility of subject product in organic solvents were reported as follows:

In all solvents, solubility was reported at <0.01 g/L at 20°C.

Solvents tested: Acetone; 1,2-dichloroethane; ethyl acetate; n-heptane; methanol; and p-xylene.

The same data was also reported in MRIDs 476854-04 & 477397-01 and reviewed in connection with a "me-too" registration of subject product (DP#363572, S. Malak, 04/AUG/2009).

### Conclusion

The submitted study pertaining to solubility of glyphosate in organic solvents is acceptable.

cc::S. Malak and Database File (Reg. No.86004-Ra).  
7505P:RD:TRB:PY-7347:s.m.:04/AUG/2009:703-308-9365:<86004-Ra>.04-R>.

FEE

P.C. 41700

DATE OUT: 04/AUG/2009

**FEE: PRODUCT CHEMISTRY REVIEW OF: A TECHNICAL GRADE TGAI [X]**  
**DP BARCODE NOs.: 363572** **FILE SYMBOL No.: 86004-R**  
**MRIDs: 476854-01 to -11, -13, -14 + 476972-01, 02** **ACTION CODE: R310**  
**PRODUCT NAME: Glyphosate Technical** **FOOD & NON-FOOD USES [X]**  
**COMPANY NAME: Repar-Glypho, LLC** **DECISION NO.: 406729**  
**PPC OF THIS TGAI 417300**

**FROM:** Sami Malak, Chemist *Sami Malak*  
Technical Review Branch/RD (7505P)

*S13m 8/5/09*

**TO:** RM 25 James Tompkins/Vickie Walters  
Herbicide Branch/RD (7505P)

### INTRODUCTION:

In a letter dated 17/FEB/2009, the applicant requested a "me-too" registration of subject product claiming its similarity to glyphosate, Reg. No. 524-420. In support of this action, the applicant included/referenced product chemistry data using the selective method of support, a proposed basic CSF dated 09/FEB/2009, a proposed label, Certificate With Respect to Citation of Data, and Data Matrix.

### FINDINGS:

1. The subject product, Glyphosate Technical, was produced for the applicant by Excel Crop Care Limited of Mumbai, India. The product, CAS #1071-93-6, is 96.3% pure in the form of N-(phosphonomethyl)glycine.
2. The subject product, a herbicide, will be used to formulate end-use herbicide products that will be used for weed control in crops & non-crops areas.
3. The subject product is substantially similar in composition to glyphosate, Reg. No. 524-420. Both products contain the same nominal concentration, upper/lower certified limits of the active ingredient, and physical/chemical properties. (refer to Confidential Appendix A under Components of Potential Toxicological Concern).
- ✓ 4. The applicant should be advised to submit product's storage stability and corrosion characteristics two product chemistry data requirements of GRNs 830.6317 & 830.6320, respectively.
5. Except for the data gaps in Finding 3 above, the submitted/referenced product chemistry data is adequate and support "me-too" registration of subject product.
6. Adequate analytical method is available for enforcement. The method, included with this submission, MRID #476854-03, is reviewed in this memorandum.

- ✓7. The proposed analytical method will need to be validated by the EPA's laboratory. The applicant should be advised to send the method and samples to EPA's laboratory at the following address: EPA Analytical Chemistry Laboratory; 701 Mapes Road; Fort Meade, MD 20755-5350.
8. The label claim nominal concentrations of 96.3% Glyphosate Technical is somewhat consistent with that in the proposed basic CSF dated 09/FEB/2009 listed at 96.5%. After revising the CSF (Finding 9 below), the label claim nominal concentration must be consistent with that in the CSF.
9. The proposed basic CSF dated 09/FEB/2009 will need some revisions (please refer to Confidential Appendix A under Needed CSF Revisions).

#### **CONCLUSIONS:**

1. From the product chemistry view point, the subject product is substantially similar in composition to glyphosate, Reg. No. 524-420 (Finding 3 above).
2. After resolving Findings 4 & 7 above, the TRB will have no objections for a "me-too" registration of subject product. The proposed label and basic CSF dated 09/FEB/2009 will be accepted after resolving Finding 9 above.

*must do!*

#### **NOTE TO RM:**

Please note Finding 8 above.

#### **REVIEW OF PRODUCT CHEMISTRY DATA:**

1. A statement of data confidentiality dated 09/FEB/2009 was included with this submission claiming confidentiality of some of the submitted data on the basis of its falling within the scope of FIFRA§10(d)(1)(A), (B), or (C). Review of CBI data was moved to Confidential appendix A.
2. A GLP Statement dated 09/FEB/2009 was included with this submission to the effect that some of the submitted studies were conducted in compliance with the OECD Council N & the French Decree N, December 4, 2006.

The applicant has submitted the following MRIDs of product chemistry data: Group A, Series 830-Product Identity, Composition, and Analysis (40 CFR§158.320 to 355):

Table 1: Glyphosate Technical: N-(phosphonomethyl)glycine				
GRN	Requirement	MRID	Status <sup>1</sup>	Details and/or Deficiency <sup>2</sup>
830.1550	Product Identity & Disclosure of Ingredients	476854-01 & -02	A	For product identity refer to text below. For product's composition refer to Confidential Appendix A for details.
830.1600 830.1620	Starting Materials & Manufacturing Process	476854-01	A	Refer to Confidential Appendix A for details.
830.1670	Discussion of Impurities	476854-01 & -02	A	Refer to Confidential Appendix A for details.
830.1700	Preliminary Analysis	476854-03	A	Refer to Confidential Appendix A for details.
830.1750	Certification of Limits	476854-03	A	Refer to Confidential Appendix A for details.
830.1800	Analytical Methods	476854-03	A	Refer to text for details
<sup>1</sup> A = Acceptable; N = Unacceptable (see Deficiency); N/A = Not Applicable. <sup>2</sup> Refer to CBI Appendix A for details.				

**Group A, Series 830-Product Identity, Composition, and Analysis (40 CFR§158.320 to 355)**

**830-1550 Product Identity and Composition**

The subject product, Glyphosate Technical, a new TGAI was produced for the applicant by Excel Crop Care Limited of Mumbai, India.

Chemical name: N-(phosphonomethyl)glycine

Common Name: Glyphosate Technical

CAS #: 1071-936-

Product category: Herbicide

Molecular Formula: C<sub>3</sub>H<sub>3</sub>NO<sub>5</sub>P

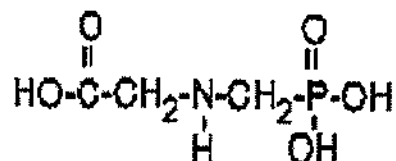
Molecular Weight: 169.1



Molecular Formula:  $C_3H_3NO_5P$

Molecular Weight: 169.1

Molecular Structure:



830.1600 Description of Materials Used to Produce the Product

Refer to Confidential appendix A

830.1620 Description of Production Process

Refer to Confidential appendix A.

830-1670 Discussion of Formation of Impurities:

Refer to Confidential appendix A.

830-1700 Preliminary Analysis:

Refer to Confidential appendix A.

830-1750 Certified Limits:

Refer to Confidential appendix A.

830-1800 Enforcement Analytical Method:

Adequate analytical method is available for enforcement. The method, included with this submission, MRID #476854-02, entitled "Analytical Methods for Determination of Glyphosate and Impurities Technical." The method is HPLC equipped with a UV detector set at 195 nm. In this method, the test substance is dissolved in the mobil phase consisting of potassium dihydrogen phosphate aqueous solution:methanol (96:4 v/v). A reference standard was also prepared in the same manner. Both were then sonicated to aid in dissolution. Aliquots of 2  $\mu$ l were then injected into the HPLC for quantitative and qualitative determination of the PAI of glyphosate.

Method validation data regarding recovery, accuracy, precision, and linearity are adequate. Sample chromatograms and calculations are included with this submission.

**Physical and Chemical Properties, Subgroup B, Series 830.6302 to -830.7950 (40 CFR§158.310)**

Guideline Reference NO.(GRN 830.)/Title	Data Fulfilled	Value or Qualitative Description	MRID No.
.6302 Color	Y	White	476854-04 & 476854-05
.6303 Physical state	Y	Crystalline powder	476854-04 & 476854-05
.6304 Odor	Y	Odorless	476854-04 & 476854-05
.6313 Stability	Y	Stable when stored for a period of 14 days at 54°C.	476854-04 & 476854-08
.6314 Oxidation-Reduction/Chemical Incompatibility	Y	The test substance showed no oxidation/reduction with water, kerosene, zinc powder, potassium permanganate, and monoammonium phosphate.	476854-04 & 476854-08
.6315 Flammability	Y	Non flammable	476854-04 & 476854-07
.6316 Explodability	Y	Not considered to be explosive.	476854-04
.6317 Storage Stability	G		
.6319 Miscibility	NA	The test substance will not be diluted with petroleum distillates.	476854-04
.6320 Corrosion Characteristics	G		
.6321 Dielectric breakdown voltage	NA		476854-04
.7000 pH	Y	1.88	476854-04
.7050 UV/Visible absorption	Y	The molar absorption coefficient (L/mol *cm <sup>-1</sup> ) 42.21, $\lambda_{max}$ 206 @ pH 1.6; 32.3, $\lambda_{max}$ 210 @ pH 7; and 47, $\lambda_{max}$ 205 @ pH 10.8.	476854-04 & 476854-02
.7100 Viscosity	NA	The test substance is solid	476854-04
.7200 Melting Point	Y	A slight decomposition at 228-235 °C	476854-04 & 476854-09

.7300 Density/relative density/bulk density	Y	0.69 g/ml @ 20°C	476854-04 & 476854-10
.7370 Dissociation Constant	Y	pK <sub>a</sub> = 2.03 @ 20°C & 10.13 @ 28°C	476854-04 & 476854-11
.7520 Particle size, fiber length, and diameter distribution	NA	The test substance is not fibrous material	476854-04
.7550 Partition coefficient	Y	Log P <sub>ow</sub> = - 2.549 at 20°C	476854-04 & 476854-01
.7840 Water solubility	Y	12.91 g/L @ 30°C	476854-04 & 476854-13
.xxxx Solubility in organic solvents	Y	All <0.01 g/L at 20°C Acetone; 1,2-dichloroethane; ethyl acetate; n-heptane; methanol; and p-xylene	476854-04 & 477397-01
.7950 Vapor pressure	Y	3.98 X 10 <sup>-3</sup> mmHg at 25°C	476854-04 & 476854-14
Explanations: Y =The requirements were fulfilled; N = The requirements not fulfilled; N/A = Not applicable; G = Data gap; U = Requires upgrading; I = Incomplete or in progress; W = Waived.			

Attachment: Confidential Appendix A (pages 7 to 16).

cc::S. Malak and Database File (Reg. No.86004-R).  
7505P:RD:TRB:PY-7347:s.m.:04/AUG/2009;703-308-9365;<86004-R>.

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Page \_\_\_\_\_ is not included in this copy.

Pages 76 through 85 are not included in this copy.

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The material not included contains the following type of information:

\_\_\_\_\_ Identity of product inert ingredients.

X Identity of product impurities.

X Description of the product manufacturing process.

X Description of quality control procedures.

\_\_\_\_\_ Identity of the source of product ingredients.

\_\_\_\_\_ Sales or other commercial/financial information.

\_\_\_\_\_ A draft product label.

\_\_\_\_\_ The product confidential statement of formula.

\_\_\_\_\_ Information about a pending registration action.

\_\_\_\_\_ FIFRA registration data.

\_\_\_\_\_ The document is a duplicate of page(s) \_\_\_\_\_.

\_\_\_\_\_ The document is not responsive to the request.

\_\_\_\_\_ Internal deliberative information.

\_\_\_\_\_ Attorney-client privilege.

\_\_\_\_\_ Claimed Confidential by submitter upon submission to the Agency.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

---

Received  
N. H. H. H. H.  
8/7/09

DATE OUT: 04/AUG/2009

FEE: PRODUCT CHEMISTRY REVIEW OF: A TECHNICAL GRADE TGAI [X]  
DP BARCODE NOS.: 363572 FILE SYMBOL No.: 86004-R  
MRIDs: 476854-01 to -11, -13, -14 + 476972-01, 02 ACTION CODE: R310  
PRODUCT NAME: Glyphosate Technical FOOD & NON-FOOD USES [X]  
COMPANY NAME: Repar-Glypho, LLC DECISION NO.: 406729  
PPC OF THIS TGAI 417300

FROM: Sami Malak, Chemist *Sami Malak*  
Technical Review Branch/RD (7505P)

*S13m 8/5/09*

TO: RM 25 James Tompkins/Vickie Walters  
Herbicide Branch/RD (7505P)

### INTRODUCTION:

In a letter dated 17/FEB/2009, the applicant requested a "me-too" registration of subject product claiming its similarity to glyphosate, Reg. No. 524-420. In support of this action, the applicant included/referenced product chemistry data using the selective method of support, a proposed basic CSF dated 09/FEB/2009, a proposed label, Certificate With Respect to Citation of Data, and Data Matrix.

### FINDINGS:

1. The subject product, Glyphosate Technical, was produced for the applicant by Excel Crop Care Limited of Mumbai, India. The product, CAS #1071-93-6, is 96.3% pure in the form of N-(phosphonomethyl)glycine.
2. The subject product, a herbicide, will be used to formulate end-use herbicide products that will be used for weed control in crops & non-crops areas.
3. The subject product is substantially similar in composition to glyphosate, Reg. No. 524-420. Both products contain the same nominal concentration, upper/lower certified limits of the active ingredient, and physical/chemical properties. (refer to Confidential Appendix A under Components of Potential Toxicological Concern).
4. The applicant should be advised to submit product's storage stability and corrosion characteristics two product chemistry data requirements of GRNs 830.6317 & 830.6320, respectively.
5. Except for the data gaps in Finding 3 above, the submitted/referenced product chemistry data is adequate and support "me-too" registration of subject product.
6. Adequate analytical method is available for enforcement. The method, included with this submission, MRID #476854-03, is reviewed in this memorandum.

7. The proposed analytical method will need to be validated by the EPA's laboratory. The applicant should be advised to send the method and samples to EPA's laboratory at the following address: EPA Analytical Chemistry Laboratory; 701 mapes Road; Fort Meade, MD 20755-5350.
8. The label claim nominal concentrations of 96.3% Glyphosate Technical is somewhat consistent with that in the proposed basic CSF dated 09/FEB/2009 listed at 96.5%. After revising the CSF (Finding 9 below), the label claim nominal concentration must be consistent with that in the CSF.
9. The proposed basic CSF dated 09/FEB/2009 will need some revisions (please refer to Confidential Appendix A under Needed CSF Revisions).

#### **CONCLUSIONS:**

1. From the product chemistry view point, the subject product is substantially similar in composition to glyphosate, Reg. No. 524-420 (Finding 3 above).
2. After resolving Findings 4 & 7 above, the TRB will have no objections for a "me-too" registration of subject product. The proposed label and basic CSF dated 09/FEB/2009 will be accepted after resolving Finding 9 above.

#### **NOTE TO RM:**

Please note Finding 8 above.

#### **REVIEW OF PRODUCT CHEMISTRY DATA:**

1. A statement of data confidentiality dated 09/FEB/2009 was included with this submission claiming confidentiality of some of the submitted data on the basis of its falling within the scope of FIFRA§10(d)(1)(A), (B), or (C). Review of CBI data was moved to Confidential appendix A.
2. A GLP Statement dated 09/FEB/2009 was included with this submission to the effect that some of the submitted studies were conducted in compliance with the OECD Council N & the French Decree N, December 4, 2006.

The applicant has submitted the following MRIDs of product chemistry data: Group A, Series 830-Product Identity, Composition, and Analysis (40 CFR§158.320 to 355):

Table 1: Glyphosate Technical: N-(phosphonomethyl)glycine				
GRN	Requirement	MRID	Status <sup>1</sup>	Details and/or Deficiency <sup>2</sup>
830.1550	Product Identity & Disclosure of Ingredients	476854-01 & -02	A	For product identity refer to text below. For product's composition refer to Confidential Appendix A for details.
830.1600 830.1620	Starting Materials & Manufacturing Process	476854-01	A	Refer to Confidential Appendix A for details.
830.1670	Discussion of Impurities	476854-01 & -02	A	Refer to Confidential Appendix A for details.
830.1700	Preliminary Analysis	476854-03	A	Refer to Confidential Appendix A for details.
830.1750	Certification of Limits	476854-03	A	Refer to Confidential Appendix A for details.
830.1800	Analytical Methods	476854-03	A	Refer to text for details
<sup>1</sup> A = Acceptable; N = Unacceptable (see Deficiency); N/A = Not Applicable. <sup>2</sup> Refer to CBI Appendix A for details.				

**Group A, Series 830-Product Identity, Composition, and Analysis (40 CFR§158.320 to 355)**

830-1550 Product Identity and Composition

The subject product, Glyphosate Technical, a new TGAI was produced for the applicant by Excel Crop Care Limited of Mumbai, India.

Chemical name: N-(phosphonomethyl)glycine

Common Name: Glyphosate Technical

CAS #: 1071-936-

Product category: Herbicide

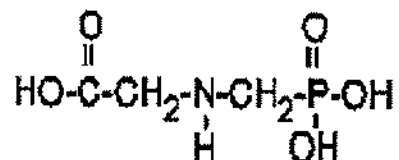
Molecular Formula: C<sub>3</sub>H<sub>3</sub>NO<sub>5</sub>P

Molecular Weight: 169.1

Molecular Formula:  $\text{C}_3\text{H}_3\text{NO}_5\text{P}$

Molecular Weight: 169.1

Molecular Structure:



830.1600 Description of Materials Used to Produce the Product  
Refer to Confidential appendix A

830.1620 Description of Production Process  
Refer to Confidential appendix A.

830-1670 Discussion of Formation of Impurities:  
Refer to Confidential appendix A.

830-1700 Preliminary Analysis:  
Refer to Confidential appendix A.

830-1750 Certified Limits:  
Refer to Confidential appendix A.

830-1800 Enforcement Analytical Method:

Adequate analytical method is available for enforcement. The method, included with this submission, MRID #476854-02, entitled "Analytical Methods for Determination of Glyphosate and Impurities Technical." The method is HPLC equipped with a UV detector set at 195 nm. In this method, the test substance is dissolved in the mobil phase consisting of potassium dihydrogen phosphate aqueous solution:methanol (96:4 v/v). A reference standard was also prepared in the same manner. Both were then sonicated to aid in dissolution. Aliquots of 2  $\mu\text{l}$  were then injected into the HPLC for quantitative and qualitative determination of the PAI of glyphosate.

Method validation data regarding recovery, accuracy, precision, and linearity are adequate. Sample chromatograms and calculations are included with this submission.



**Physical and Chemical Properties, Subgroup B, Series 830.6302 to -830.7950 (40 CFR§158.310)**

Guideline Reference NO.(GRN 830.)/Title	Data Fulfilled	Value or Qualitative Description	MRID No.
.6302 Color	Y	White	476854-04 & 476854-05
.6303 Physical state	Y	Crystalline powder	476854-04 & 476854-05
.6304 Odor	Y	Odorless	476854-04 & 476854-05
.6313 Stability	Y	Stable when stored for a period of 14 days at 54°C.	476854-04 & 476854-08
.6314 Oxidation-Reduction/Chemical Incompatibility	Y	The test substance showed no oxidation/reduction with water, kerosene, zinc powder, potassium permanganate, and monoammonium phosphate.	476854-04 & 476854-08
.6315 Flammability	Y	Non flammable	476854-04 & 476854-07
.6316 Explodability	Y	Not considered to be explosive.	476854-04
.6317 Storage Stability	G		
.6319 Miscibility	NA	The test substance will not be diluted with petroleum distillates.	476854-04
.6320 Corrosion Characteristics	G		
.6321 Dielectric breakdown voltage	NA		476854-04
.7000 pH	Y	1.88	476854-04
.7050 UV/Visible absorption	Y	The molar absorption coefficient (L/mol *cm <sup>-1</sup> ) 42.21, $\lambda_{\max}$ 206 @ pH 1.6; 32.3, $\lambda_{\max}$ 210 @ pH 7; and 47, $\lambda_{\max}$ 205 @ pH 10.8.	476854-04 & 476854-02
.7100 Viscosity	NA	The test substance is solid	476854-04
.7200 Melting Point	Y	A slight decomposition at 228-235 °C	476854-04 & 476854-09

.7300 Density/relative density/bulk density	Y	0.69 g/ml @ 20°C	476854-04 & 476854-10
.7370 Dissociation Constant	Y	pK <sub>a</sub> = 2.03 @ 20°C & 10.13 @ 28°C	476854-04 & 476854-11
.7520 Particle size, fiber length, and diameter distribution	NA	The test substance is not fibrous material	476854-04
.7550 Partition coefficient	Y	Log P <sub>ow</sub> = - 2.549 at 20°C	476854-04 & 476854-01
.7840 Water solubility	Y	12.91 g/L @ 30°C	476854-04 & 476854-13
.xxxx Solubility in organic solvents	Y	All <0.01 g/L at 20°C Acetone; 1,2-dichloroethane; ethyl acetate; n-heptane; methanol; and p-xylene	476854-04 & 477397-01
.7950 Vapor pressure	Y	3.98 X 10 <sup>-3</sup> mmHg at 25°C	476854-04 & 476854-14
Explanations: Y = The requirements were fulfilled; N = The requirements not fulfilled; N/A = Not applicable; G = Data gap; U = Requires upgrading; I = Incomplete or in progress; W = Waived.			

Attachment: Confidential Appendix A (pages 7 to 16).

cc::S. Malak and Database File (Reg. No.86004-R).  
7505P:RD:TRB:PY-7347:s.m.:04/AUG/2009:703-308-9365:<86004-R>.

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Page \_\_\_\_\_ is not included in this copy.

Pages   92   through  101  are not included in this copy.

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The material not included contains the following type of information:

       Identity of product inert ingredients.

  X   Identity of product impurities.

  X   Description of the product manufacturing process.

  X   Description of quality control procedures.

       Identity of the source of product ingredients.

       Sales or other commercial/financial information.

       A draft product label.

       The product confidential statement of formula.

       Information about a pending registration action.

       FIFRA registration data.

       The document is a duplicate of page(s) \_\_\_\_\_.

       The document is not responsive to the request.

       Internal deliberative information.

       Attorney-client privilege.

       Claimed Confidential by submitter upon submission to the Agency.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

---

477397-01

TRANSMITTAL DOCUMENT

NAME AND ADDRESS OF SUBMITTER:

Repar-Glypho, LLC  
c/o Mandava Associates, LLC  
1050 Connecticut Avenue, NW / Suite 1000  
Washington, DC 20036

REGULATORY ACTION SUPPORTED BY THIS PACKAGE:

FIFRA Registration Application for:

Product Name:	Glyphosate Technical
Active Ingredient:	Glyphosate
EPA Reg. No.:	86004-R

TRANSMITTAL DATE:

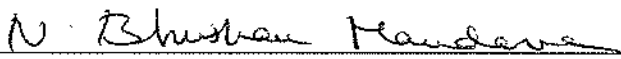
April 29, 2009

LIST OF SUBMITTED STUDIES:

Volume 3.12: GLYPHOSATE TECHNICAL: Physical and Chemical Properties: Solubility of Glyphosate Technical in Organic Solvents. Data Requirement: CIPAC Methods: CIPAC MT 181 and CIPAC MT 157;; REPAR-GLYPHO, LLC; Volume 3.12.

**47739701**

COMPANY OFFICIAL:

  
N. Bhushan Mandava  
Registration Agent for Repar-Glypho, LLC

COMPANY CONTACT:

N. Bhushan Mandava  
Mandava Associates, LLC  
1050 Connecticut Avenue, NW/Suite 1000  
Washington, D.C. 20036  
(202) 223-1424/1747

TRANSMITTAL DOCUMENT

NAME AND ADDRESS OF SUBMITTER:

Repar-Glypho, LLC  
c/o Mandava Associates, LLC  
1050 Connecticut Avenue, NW / Suite 1000  
Washington, DC 20036

REGULATORY ACTION SUPPORTED BY THIS PACKAGE:

FIFRA Registration Application for:

Product Name:	Glyphosate Technical
Active Ingredient:	Glyphosate
EPA Reg. No.:	86004-R

TRANSMITTAL DATE:

April 29, 2009

LIST OF SUBMITTED STUDIES:

Volume 3.12: GLYPHOSATE TECHNICAL: Physical and Chemical Properties: Solubility of Glyphosate Technical in Organic Solvents. Data Requirement: CIPAC Methods: CIPAC MT 181 and CIPAC MT 157;; REPAR-GLYPHO, LLC; Volume 3.12.

477397-61

COMPANY OFFICIAL:

N. Bhushan Mandava

N. Bhushan Mandava  
Registration Agent for Repar-Glypho, LLC

COMPANY CONTACT:

N. Bhushan Mandava  
Mandava Associates, LLC  
1050 Connecticut Avenue, NW/Suite 1000  
Washington, D.C. 20036  
(202) 223-1424/1747

TRANSMITTAL DOCUMENT

NAME AND ADDRESS OF SUBMITTER:

Repar-Glypho, LLC  
c/o Mandava Associates, LLC  
1050 Connecticut Avenue, NW / Suite 1000  
Washington, DC 20036

REGULATORY ACTION SUPPORTED BY THIS PACKAGE:

FIFRA Registration Application for:

Product Name:	Glyphosate Technical
Active Ingredient:	Glyphosate
EPA Reg. No.:	86004-R

TRANSMITTAL DATE:

April 29, 2009

LIST OF SUBMITTED STUDIES:

477397-01 Volume 3.12: GLYPHOSATE TECHNICAL: Physical and Chemical  
Properties: Solubility of Glyphosate Technical in Organic  
Solvents. Data Requirement: CIPAC Methods: CIPAC  
MT 181 and CIPAC MT 157;; REPAR-GLYPHO, LLC;  
Volume 3.12.

COMPANY OFFICIAL:

N. Bhushan Mandava  
N. Bhushan Mandava  
Registration Agent for Repar-Glypho, LLC

COMPANY CONTACT:

N. Bhushan Mandava  
Mandava Associates, LLC  
1050 Connecticut Avenue, NW/Suite 1000  
Washington, D.C. 20036  
(202) 223-1424/1747



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

May 4, 2009

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MANDAVA ASSOCIATES, LLC  
REPAR-GLYPHO, LLC  
1050 CONN. AVE., NW, STE 1000  
WASHINGTON, DC 20036-

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 29-APR-09. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

## **Memorandum**

Date: 5/6/09

To: PM 25, Regulatory Manager

From: Information Services Branch, ITRMD

Your receipt of this data submission is not an indication that MRIDs for the enclosed studies have been posted to OPPIN.

**We expect that it will be approximately 5 days from the above date before the study-level data is available in OPPIN.**

If you have any questions about this process, please contact Teresa Downs (305-5363).

This is a: ☒ fully accepted submission  
☐ partially accepted submission  
☐ rejected submission



**MANDAVA ASSOCIATES, LLC**

**CONSULTANTS IN SCIENCE, TECHNOLOGY AND REGULATORY AFFAIRS**  
1050 CONNECTICUT AVENUE, N.W., SUITE 1000, WASHINGTON, DC 20036  
Telephone: (202)-223-1424/1747 · Fax: (202)-223-0141 · E-MAIL: [Mandava@compuserve.com](mailto:Mandava@compuserve.com)

Hand Delivered

April 29, 2009

Mr. James Tompkins  
Product Manager (PM 25)  
Herbicide Branch  
Registration Division (7504C)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Washington, D.C. 20460

SUBJECT: ME-TOO Application for Registration  
Product Name: **GLYPHOSATE TECHNICAL**  
Active Ingredient: Glyphosate  
Company Name: Repar-Glypho, LLC  
EPA Company Number: 86004 - R

Dear Mr. Tompkins:

On behalf of Repar-Glypho, LLC, we are submitting the following study to support the registration of Glyphosate Technical (EPA Reg. No. 86004-R) in addition to the studies that were submitted on February 17, 2009.

Volume 3.12

477397-01

GLYPHOSATE TECHNICAL: Physical and Chemical Properties: Solubility of Glyphosate Technical in Organic Solvents. Data Requirement: CIPAC Methods: CIPAC MT 181 and CIPAC MT 157; REPAR-GLYPHO, LLC; Volume 3.12.

The product chemistry data for the subject product was developed by Repar-Glypho, LLC.

Please also note that Repar-Glypho, LLC is relying on the safety data submitted by other registrants on Glyphosate.

In addition to the above studies, we are also relying on other items of data on

Mr. James Tompkins  
April 27, 2009

Page 2

the subject product in the Agency's files.

We are requesting an "**Expedited Review**" in accordance with FIFRA Section 3(c)(3)(b)(i), because our product (Glyphosate Technical) is substantially similar or identical in composition and labeling to **GLYPHOSATE** (EPA Reg. No.: 524-420).

Thank you for your time and cooperation

Sincerely,

A handwritten signature in black ink that reads "N. Bhushan Mandava". The signature is written in a cursive, flowing style.

N. Bhushan Mandava, Ph.D., RAC  
Agent for Repar-Glypho, LLC

Enclosure

TRANSMITTAL DOCUMENT

NAME AND ADDRESS OF SUBMITTER:

Repar-Glypho, LLC  
c/o Mandava Associates, LLC  
1050 Connecticut Avenue, NW / Suite 1000  
Washington, DC 20036

REGULATORY ACTION SUPPORTED BY THIS PACKAGE:

FIFRA Registration Application for:

Product Name:	Glyphosate Technical
Active Ingredient:	Glyphosate
EPA Reg. No.:	86004-R

TRANSMITTAL DATE:

April 29, 2009

LIST OF SUBMITTED STUDIES:

Volume 3.12: GLYPHOSATE TECHNICAL: Physical and Chemical Properties: Solubility of Glyphosate Technical in Organic Solvents. Data Requirement: CIPAC Methods: CIPAC MT 181 and CIPAC MT 157;; REPAR-GLYPHO, LLC; Volume 3.12.

**47739701**

COMPANY OFFICIAL:



N. Bhushan Mandava  
Registration Agent for Repar-Glypho, LLC

COMPANY CONTACT:

N. Bhushan Mandava  
Mandava Associates, LLC  
1050 Connecticut Avenue, NW/Suite 1000  
Washington, D.C. 20036  
(202) 223-1424/1747

# Administrative Materials

# Glyphosate Technical

For Manufacturing and Formulating Into Herbicides Only

## ACTIVE INGREDIENT:

Glyphosate ..... 96.3%  
OTHER INGREDIENTS:..... 3.7%  
TOTAL: ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN**

## DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### First Aid

IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
IF SWALLOWED	Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Manufactured for:  
Repar - Glypho, LLC  
8070 Georgia Avenue / Suite 209  
Silver Spring, MD 20910

EPA Reg. No. 86004-\_\_\_\_\_ EPA Est. No: \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALLONS

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**DANGER: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED.** Do not get in eyes or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

## ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Eliminator Systems (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## PHYSICAL or CHEMICAL HAZARDS

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

**DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS.** This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial turf, ornamental nursery, tree and forestry, and residential sites; or some or all of the following food cropping systems: root, bulb, and tuber vegetables, leafy vegetables, Brassica and cucurbit vegetables, succulent and dried legume vegetables, fruiting vegetables, fruits (citrus, pome, stone, various tropical fruits, small fruits and berries), tree nuts, cereal grains, animal grasses and forages, herbs, spices and food crops including asparagus, avocado, banana, canola, coffee, cotton, coconut, cranberry, dates, flax, grapes, kiwi, lychee, mint, olive, palms, peanut, pineapple, soybeans, strawberry, sugar beet, sugarcane and tea.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed or seed by storage and disposal.

**PESTICIDE STORAGE:** Store in original container only, in a cool, dry, locked area. Store separately from other pesticides, fertilizers, food or feed to prevent contamination.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

**CONTAINER DISPOSAL:** Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty container into formulation equipment. This container may be returned for refilling with this product. If not refilled, dispose of empty container in a sanitary landfill or by incineration.

## CONDITIONS OF SALE AND LIMITED WARRANTY

REPAR - GLYPHO, LLC warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use herein described when used in accordance with the directions for use. The Directions For Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of REPAR - GLYPHO, LLC or the SELLER. To the extent consistent with applicable law, Repar Corporation shall not be liable for the consequential, special or indirect damages resulting from the handling or use of this product. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

Except as expressly provided herein, Repar - Glypho, LLC makes no warranties, guarantees, or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage.

# Glyphosate Technical

For Manufacturing and Formulating Into Herbicides Only

## ACTIVE INGREDIENT:

Glyphosate ..... 96.3%  
OTHER INGREDIENTS:..... 3.7%  
TOTAL:..... 100.0%

**KEEP OUT OF REACH OF CHILDREN**

## DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### First Aid

IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
IF SWALLOWED	Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Manufactured for:  
Repar - Glypho, LLC  
8070 Georgia Avenue / Suite 209  
Silver Spring, MD 20910

EPA Reg. No. 86004-\_\_\_\_\_ EPA Est. No: \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALLONS

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**DANGER: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED.** Do not get in eyes or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

## ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Eliminator Systems (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## PHYSICAL or CHEMICAL HAZARDS

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

**DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS.** This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial turf, ornamental nursery, tree and forestry, and residential sites; or some or all of the following food cropping systems: root, bulb, and tuber vegetables, leafy vegetables, Brassica and cucurbit vegetables, succulent and dried legume vegetables, fruiting vegetables, fruits (citrus, pome, stone, various tropical fruits, small fruits and berries), tree nuts, cereal grains, animal grasses and forages, herbs, spices and food crops including asparagus, avocado, banana, canola, coffee, cotton, coconut, cranberry, dates, flax, grapes, kiwi, lychee, mints, olive, palms, peanut, pineapple, soybeans, strawberry, sugar beet, sugarcane and tea.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed or seed by storage and disposal.

**PESTICIDE STORAGE:** Store in original container only, in a cool, dry, locked area. Store separately from other pesticides, fertilizers, food or feed to prevent contamination.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

**CONTAINER DISPOSAL:** Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty container into formulation equipment. This container may be returned for refilling with this product. If not refilled, dispose of empty container in a sanitary landfill or by incineration.

## CONDITIONS OF SALE AND LIMITED WARRANTY

REPAR - GLYPHO, LLC warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use herein described when used in accordance with the directions for use. The Directions For Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of REPAR - GLYPHO, LLC or the SELLER. To the extent consistent with applicable law, Repar Corporation shall not be liable for the consequential, special or indirect damages resulting from the handling or use of this product. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

Except as expressly provided herein, Repar - Glypho, LLC makes no warranties, guarantees, or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

March 11, 2009

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

REPAR-GLYPHO, LLC  
1050 CONN. AVE., NW, STE 1000  
WASHINGTON, DC 20036-

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 10-MAR-09. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

**MANDAVA ASSOCIATES, LLC**

CONSULTANTS IN SCIENCE, TECHNOLOGY AND REGULATORY AFFAIRS  
1050 CONNECTICUT AVENUE, N.W., SUITE 1000, WASHINGTON, DC 20036  
Telephone: (202)-223-1424/1747 - Fax: (202)-223-0141 - E-MAIL: [Mandava@compuserve.com](mailto:Mandava@compuserve.com)

Hand Delivered

February 17, 2009

Mr. James Tompkins  
Product Manager (PM 25)  
Herbicide Branch  
Registration Division (7504C)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Washington, D.C. 20460

SUBJECT: ME-TOO Application for Registration  
Product Name: **GLYPHOSATE TECHNICAL**  
Active Ingredient: Glyphosate  
Company Name: Repar-Glypho, LLC  
EPA Company Number: 86004

Dear Mr. Tompkins:

On behalf of Repar-Glypho, LLC, we are submitting a **ME-TOO** application for the registration of Glyphosate TECHNICAL which is a technical grade product containing Glyphosate as an active ingredient (AI). The source for AI is Glyphosate Technical (EPA Reg. No: To Be Assigned).

In support of the application for the subject product registration, we are providing the following administrative materials and product chemistry data on **GLYPHOSATE TECHNICAL**:

- 1) Application for Pesticide Registration
- 2) Confidential Statement of Formula
- 3) Certification with Respect to Citation of Data
- 4) Data Matrix
- 5) Five Copies of Draft Labeling for the Subject Product



- 1) Volume 1: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310-340; OPPTS Test Guidelines 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC1; Repar-Glypho, LLC.
- 2) Volume 2: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310 - 158.340; OPPTS Test Guideline 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC. (AMENDED REPORT)
- 3) Volume 2A: GLYPHOSATE TECHNICAL: Product Analysis and Certified Limits; Product Analysis Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.345 - 355; OPPTS Test Guideline 830.1700 -1800; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC.
- 4) Volume 3 GLYPHOSATE TECHNICAL: Physical and Chemical Characteristics: Product Analysis in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310; OPPTS Test Guideline 830.6302 - 7960; REPAR-GLYPHO, LLC; Volume 3A.
- 5) Volume 3.1 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: APPEARANCE (COLOUR, PHYSICAL STATE AND ODOUR); Product Analysis in Support of FIFRA Registration. Data Requirement: Guidelines: EPA OPPTS 830.6302, 830.6203 and 830.6304; REPAR-GLYPHO, LLC; Volume 3.1.
- 6) Volume 3.2 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: OXIDATION / REDUCTION; DATA in Support of FIFRA Registration; OPPTS Test Guideline 830.6314; REPAR-GLYPHO, LLC; Volume 3.2.
- 7) Volume 3.3 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: FLAMMABILITY; Product Analysis in Support of FIFRA Registration. OPPTS Test Guideline 830.6315;

REPAR-GLYPHO, LLC; Volume 3.3.

- 8) Volume 3.4 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: pH; Product Analysis in Support of FIFRA Registration. Data Requirement; OPPTS Test Guideline 830.7000; REPAR-GLYPHO, LLC; Volume 3.4.
- 9) Volume 3.5 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: MELTING POINT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7200; REPAR-GLYPHO, LLC; Volume 3.5.
- 10) Volume 3.6 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: TAP DENSITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7300; REPAR-GLYPHO, LLC; Volume 3.6.
- 11) Volume 3.7 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: DISSOCIATION CONSTANT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7370; REPAR-GLYPHC, LLC; Volume 3.7.
- 12) Volume 3.8 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: n-OCTANOL/WATER PARTITION COEFFICIENT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7550; REPAR-GLYPHO, LLC; Volume 3.8.
- 13) Volume 3.9 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: WATER SOLUBILITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7840; REPAR-GLYPHO, LLC; Volume 3.9.
- 14) Volume 3.10 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: VAPOUR PRESSURE; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7950; REPAR-GLYPHO, LLC; Volume 3.10.
- 15) Volume 3.11 GLYPHOSATE TECHNICAL: Physical and Chemical

Properties: UV / VISIBLE ABSORPTION; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7050; REPAR-GLYPHO, LLC; Volume 3.11.

The product chemistry data for the subject product was developed by Repar-Glypho, LLC.

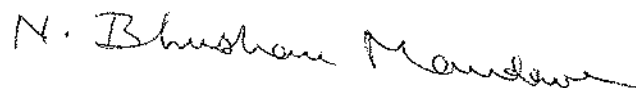
Please also note that Repar-Glypho, LLC is relying on the safety data submitted by other registrants on Glyphosate.

In addition to the above studies, we are also relying on other items of data on the subject product in the Agency's files.

We are requesting an "**Expedited Review**" in accordance with FIFRA Section 3(c)(3)(b)(i), because our product (Glyphosate Technical) is substantially similar or identical in composition and labeling to **GLYPHOSATE** (EPA Reg. No.: **524-420**).

Since we have fulfilled all the registration requirements, we request you grant the registration for the subject product, so that the applicant can market it for the upcoming rowing season.

Sincerely,



N. Bhushan Mandava, Ph.D., RAC  
Agent for Repar-Glypho, LLC

Enclosure

## TRANSMITTAL DOCUMENT

### NAME AND ADDRESS OF SUBMITTER:

Repar-Glypho, LLC  
c/o Mandava Associates, LLC  
1050 Connecticut Avenue, N.W., Ste 1000  
Washington, DC 20036

### REGULATORY ACTION SUPPORTED BY THIS PACKAGE:

FIFRA Registration Application for:

Product Name:	Glyphosate Technical
Active Ingredient:	Glyphosate
Company Name:	Repar-Glypho, LLC
EPA Company Number:	86004
EPA File Symbol:	Not Assigned

### TRANSMITTAL DATE:

February 17, 2009

### LIST OF SUBMITTED STUDIES:

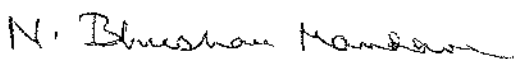
- 47685401** 1) Volume 1: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310-340; OPPTS Test Guidelines 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC1; Repar-Glypho, LLC.
- 47885402** 2) Volume 2: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310 - 158.340; OPPTS Test Guideline 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC. (AMENDED REPORT)

- 47685403** 3) Volume 2A: GLYPHOSATE TECHNICAL: Product Analysis and Certified Limits; Product Analysis Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.345 - 355; OPPTS Test Guideline 830.1700 -1800; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC.
- 47685404** 4) Volume 3 GLYPHOSATE TECHNICAL: Physical and Chemical Characteristics: Product Analysis in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310; OPPTS Test Guideline 830.6302 - 7960; REPAR-GLYPHO, LLC; Volume 3A.
- 47685405** 5) Volume 3.1 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: APPEARANCE (COLOUR, PHYSICAL STATE AND ODOUR); Product Analysis in Support of FIFRA Registration. Data Requirement: Guidelines: EPA OPPTS 830.6302, 830.6203 and 8306304; REPAR-GLYPHO, LLC; Volume 3.1.
- 47685406** 6) Volume 3.2 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: OXIDATION / REDUCTION; DATA in Support of FIFRA Registration; OPPTS Test Guideline 830.6314; REPAR-GLYPHO, LLC; Volume 3.2.
- 47685407** 7) Volume 3.3 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: FLAMMABILITY; Product Analysis in Support of FIFRA Registration. OPPTS Test Guideline 830.6315; REPAR-GLYPHO, LLC; Volume 3.3.
- 47685408** 8) Volume 3.4 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: pH; Product Analysis in Support of FIFRA Registration. Data Requirement; OPPTS Test Guideline 830.7000; REPAR-GLYPHO, LLC; Volume 3.4.
- 47685409** 9) Volume 3.5 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: MELTING POINT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7200; REPAR-GLYPHO, LLC; Volume 3.5.
- 47685410** 10) Volume 3.6 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: TAP DENSITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7300; REPAR-GLYPHO, LLC; Volume 3.6.
- 47685411** 11) Volume 3.7 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: DISSOCIATION CONSTANT; Product

Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7370; REPAR-GLYPHO, LLC; Volume 3.7.

- 47697201** 12) Volume 3.8 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: n-OCTANOL/WATER PARTITION COEFFICIENT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7550; REPAR-GLYPHO, LLC; Volume 3.8.
- 47685413** 13) Volume 3.9 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: WATER SOLUBILITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7840; REPAR-GLYPHO, LLC; Volume 3.9.
- 47685414** 14) Volume 3.10 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: VAPOUR PRESSURE; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7950; REPAR-GLYPHO, LLC; Volume 3.10.
- 47697202** 15) Volume 3.11 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: UV / VISIBLE ABSORPTION; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7050; REPAR-GLYPHO, LLC; Volume 3.11.

COMPANY OFFICIAL



N. Bhushan Mandava, Ph.D., RAC  
Registration Agent for Repar Corporation

**COMPANY CONTACT:**

N. Bhushan Mandava, Ph.D.  
Mandava Associates, LLC  
1730 M Street, NW Suite 906  
Washington, D.C. 20036  
Tel : (202) 223-1424/1747  
Fax : (202) 223-0141

**Fw: Follow up to our 3/5/09 phone call**  
Anthony Ashe to Linda Arrington  
Cc: Sree Nair

03/10/2009 06:41 AM

Anthony H. Ashe  
SIGI Contractor  
(703)305-0073

----- Forwarded by Anthony Ashe/DC/USEPA/US on 03/10/2009 06:40 AM -----

From: "Bhushan Mandava" <mandava@compuserve.com>  
To: Anthony Ashe/DC/USEPA/US@EPA  
Cc: "Bhushan Mandava" <mandava@compuserve.com>  
Date: 03/09/2009 05:58 PM  
Subject: RE: Follow up to our 3/5/09 phone call

Dear Anthony:

This is a follow up to our email from Friday March 6, 2008 at which time we had sent you the corrected Certification Statement (EPA Form 8570-34) for the deficiencies in the registration applications for five products containing glyphosate as active ingredient:

EPA File Symbol:

86004-R  
86004-E  
86004-G  
86004-U  
86004-L

We are now sending you the missing page 31 from Line item # 12 on the Transmittal Document for Volume 3.8 (Study Report: Partition Coefficient (n-OCTANOL/WATER) of Glyphosate -- Please see PDF file: Page 31 for Volume 3.8 (Partition Coefficient).pdf.

We are also sending you the corrected/reformatted copy of the confidentiality claim (page 2 of 18) from Line item # 15 on the Transmittal Document for Volume 3.11 UV/Visible Absorption of Glyphosate. We also have included page 4 with the updated Table of Contents to reflect the changes to the title on page 2. Please see PDF File: Pages 2 and 4 for UV-Visible Absorption of Glyphosate.pdf.

We hope that we have corrected all the deficiencies for the above mentioned products.

If there are further questions, please contact me.

Thank you.

Regards,

N. Bhushan Mandava  
Agent for: Repar-Glypho, LLC  
c/o Mandava Associates, LLC  
1050 Connecticut Avenue, N.W.  
Suite 1000  
Washington, D.C. 20036  
(202) 223 - 1424  
(202) 223 - 0141

-----Original Message-----



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**401 M Street, S.W.**  
**WASHINGTON, D.C. 20460**

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reviewing the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the completed form to this address.

**Certification with Respect to Citation of Data**

Applicant's/Registrant's Name, Address, and Telephone Number Repar-Glypho, LLC, 8070 Georgia Avenue, Suite 209, Silver Spring, MD 20910; (202) 223-1424	EPA Registration Number/File Symbol 86004-R
Active Ingredient(s) and/or representative test compound(s) Glyphosate (CAS # 1071-83-6)	Date March 5, 2009
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158) Herbicide, Terrestrial, Food Crops	Product Name Glyphosate Technical

**NOTE:** If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

**SECTION I: METHOD OF DATA SUPPORT (Check one method only)**

☐ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

☒ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).

**SECTION II: GENERAL OFFER TO PAY**

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]

☒ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.

**SECTION III: CERTIFICATION**

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature <i>N. Bhushan Mandava</i>	Date March 5, 2009	Typed or Printed Name and Title N. Bhushan Mandava, Agent for Repar-Glypho, LLC
--	-----------------------	--



**Fw: Follow up to our 3/5/09 phone call**  
Anthony Ashe to Linda Arrington  
Cc: Sree Nair

03/10/2009 06:40 AM

Anthony H. Ashe  
SIGI Contractor  
(703)305-0073

----- Forwarded by Anthony Ashe/DC/USEPA/US on 03/10/2009 06:39 AM -----

From: "Bhushan Mandava" <mandava@compuserve.com>  
To: Anthony Ashe/DC/USEPA/US@EPA  
Cc: "Srinivas Mandava, M.D." <Srini@Mandava.com>  
Date: 03/06/2009 02:52 PM  
Subject: RE: Follow up to our 3/5/09 phone call

Dear Anthony:

We have carefully reviewed the deficiencies in the registration applications for five products containing glyphosate as active ingredient:

EPA File Symbol:

86004-R  
86004-E  
86004-G  
86004-U  
86004-L

As a first step to correct the deficiencies, we are sending you the signed Certification Statement (EPA Form 8570-34) for the above-mentioned products (see attached pdf file)..

We are now working on the deficiencies in data volumes and we will send you on Monday.

If there are further questions, please contact me.

Thanks.

N. Bhushan Mandava  
Mandava Associates, LLC  
1050 Connecticut Avenue, N.W.  
Suite 1000  
Washington, D.C. 20036  
Tel: (202) 223 - 1424  
Fax: (202) 223 - 0141

-----Original Message-----

From: Ashe.Anthony@epamail.epa.gov [mailto:Ashe.Anthony@epamail.epa.gov]  
Sent: Thursday, March 05, 2009 1:27 PM  
To: Bhushan Mandava  
Subject: Follow up to our 3/5/09 phone call

As a follow up to our phone call, the following is a list of the deficiencies we have found:

Regarding submission in support of registration number 86004-R:

- Forms 8570-34 and 8570-35 are not consistent. The "cite-all" method of support was selected on the certification with respect to citation of data, but the data matrix shows that some of the data is

From: Ashe.Anthony@epamail.epa.gov [mailto:Ashe.Anthony@epamail.epa.gov]  
Sent: Thursday, March 05, 2009 1:27 PM  
To: Bhushan Mandava  
Subject: Follow up to our 3/5/09 phone call

As a follow up to our phone call, the following is a list of the deficiencies we have found:

Regarding submission in support of registration number 86004-R:

- Forms 8570-34 and 8570-35 are not consistent. The "cite-all" method of support was selected on the certification with respect to citation of data, but the data matrix shows that some of the data is owned by the company. The choice in Section 1 of form 8570-34 (certification) must be changed to selective method (which does include language about a specific "cite all" method that falls within the scope of selective).

- Volume 12 ("Partition Coefficient") is missing page 31. A copy of this page must be submitted.

- Volume 15 ("UV/Visible Absorption") covers information which can not be claimed as confidential. FIFRA Section 10(d)(1) only provides for confidentiality of information which: (A) discloses manufacturing or quality control processes, (B) discloses the details of any methods for testing, detecting, or measuring the quantity of any deliberately added inert ingredient of a pesticide, or (C) discloses the identity or percentage quantity of any deliberately added inert ingredient of a pesticide. A reformatted copy of the confidentiality claim must be submitted.

Regarding the submissions in support of 86004-G, 86004-E, 86004-L, AND 86004-U:

- In each of the submissions, forms 8570-34 and 8570-35 are not consistent. The "cite-all" method of support was selected on the certification with respect to citation of data, but the data matrix shows that some of the data is owned by the company. The choice in Section 1 of form 8570-34 (certification) must be changed to selective method (which does include language about a specific "cite all" method that falls within the scope of selective) for the forms submitted with respect to each of the above mentioned submissions.

These deficiencies have been reviewed and approved by the EPA. Corrections should be sent via email to ashe.anthony.epamail.epa.gov or by fax (to my attention) at (703)305-5060. Thank you for your attention to this matter, and feel free to call me directly with any questions you may have.

Anthony Ashe  
MacFadden Contractor  
(703)305-0073



Page 31 for Volume 3.8 (Partition Coefficient).pdf Pages 2 and 4 for UV-Visible Absorption of Glyphosate.pdf

owned by the company. The choice in Section 1 of form 8570-34 (certification) must be changed to selective method (which does include language about a specific "cite all" method that falls within the scope of selective).

- Volume 12 ("Partition Coefficient") is missing page 31. A copy of this page must be submitted.

- Volume 15 ("UV/Visible Absorption") covers information which can not be claimed as confidential. FIFRA Section 10(d)(1) only provides for confidentiality of information which: (A) discloses manufacturing or quality control processes, (B) discloses the details of any methods for testing, detecting, or measuring the quantity of any deliberately added inert ingredient of a pesticide, or (C) discloses the identity or percentage quantity of any deliberately added inert ingredient of a pesticide. A reformatted copy of the confidentiality claim must be submitted.

Regarding the submissions in support of 86004-G, 86004-E, 86004-L, AND 86004-U:

- In each of the submissions, forms 8570-34 and 8570-35 are not consistent. The "cite-all" method of support was selected on the certification with respect to citation of data, but the data matrix shows that some of the data is owned by the company. The choice in Section 1 of form 8570-34 (certification) must be changed to selective method (which does include language about a specific "cite all" method that falls within the scope of selective) for the forms submitted with respect to each of the above mentioned submissions.

These deficiencies have been reviewed and approved by the EPA. Corrections should be sent via email to [ashe.anthony.epamail.epa.gov](mailto:ashe.anthony.epamail.epa.gov) or by fax (to my attention) at (703)305-5060. Thank you for your attention to this matter, and feel free to call me directly with any questions you may have.

Anthony Ashe  
MacFadden Contractor  
(703)305-0073



Certification with respect to citation of data (EPA Form 8570-34) for five glyphosate products - 03-06-09.pdf

**MANDAVA ASSOCIATES, LLC**

CONSULTANTS IN SCIENCE, TECHNOLOGY AND REGULATORY AFFAIRS  
1050 CONNECTICUT AVENUE, N.W., SUITE 1000, WASHINGTON, DC 20036  
Telephone: (202)-223-1424/1747 · Fax: (202)-223-0141 · E-MAIL: [Mandava@compuserve.com](mailto:Mandava@compuserve.com)

Hand Delivered

February 17, 2009

Mr. James Tompkins  
Product Manager (PM 25)  
Herbicide Branch  
Registration Division (7504C)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Washington, D.C. 20460

*86-5 future*

SUBJECT: ME-TOO Application for Registration  
Product Name: **GLYPHOSATE TECHNICAL**  
Active Ingredient: Glyphosate  
Company Name: Repar-Glypho, LLC  
EPA Company Number: 86004

Dear Mr. Tompkins:

On behalf of Repar-Glypho, LLC, we are submitting a **ME-TOO** application for the registration of Glyphosate **TECHNICAL** which is a technical grade product containing Glyphosate as an active ingredient (AI). The source for AI is Glyphosate Technical (EPA Reg. No: To Be Assigned).

In support of the application for the subject product registration, we are providing the following administrative materials and product chemistry data on **GLYPHOSATE TECHNICAL**:

- 1) Application for Pesticide Registration
- 2) Confidential Statement of Formula
- 3) Certification with Respect to Citation of Data
- 4) Data Matrix
- 5) Five Copies of Draft Labeling for the Subject Product

- 1) Volume 1: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310-340; OPPTS Test Guidelines 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC1; Repar-Glypho, LLC.
- 2) Volume 2: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310 - 158.340; OPPTS Test Guideline 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC. (AMENDED REPORT)
- 3) Volume 2A: GLYPHOSATE TECHNICAL: Product Analysis and Certified Limits; Product Analysis Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.345 - 355; OPPTS Test Guideline 830.1700 -1800; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC.
- 4) Volume 3 GLYPHOSATE TECHNICAL: Physical and Chemical Characteristics: Product Analysis in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310; OPPTS Test Guideline 830.6302 - 7960; REPAR-GLYPHO, LLC; Volume 3A.
- 5) Volume 3.1 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: APPEARANCE (COLOUR, PHYSICAL STATE AND ODOUR); Product Analysis in Support of FIFRA Registration. Data Requirement: Guidelines: EPA OPPTS 830.6302, 830.6203 and 830.6304; REPAR-GLYPHO, LLC; Volume 3.1.
- 6) Volume 3.2 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: OXIDATION / REDUCTION; DATA in Support of FIFRA Registration; OPPTS Test Guideline 830.6314; REPAR-GLYPHO, LLC; Volume 3.2.
- 7) Volume 3.3 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: FLAMMABILITY; Product Analysis in Support of FIFRA Registration. OPPTS Test Guideline 830.6315;

REPAR-GLYPHO, LLC; Volume 3.3.

- 8) Volume 3.4 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: pH; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7000; REPAR-GLYPHO, LLC; Volume 3.4.
- 9) Volume 3.5 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: MELTING POINT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7200; REPAR-GLYPHO, LLC; Volume 3.5.
- 10) Volume 3.6 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: TAP DENSITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7300; REPAR-GLYPHO, LLC; Volume 3.6.
- 11) Volume 3.7 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: DISSOCIATION CONSTANT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7370; REPAR-GLYPHO, LLC; Volume 3.7.
- 12) Volume 3.8 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: n-OCTANOL/WATER PARTITION COEFFICIENT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7550; REPAR-GLYPHO, LLC; Volume 3.8.
- 13) Volume 3.9 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: WATER SOLUBILITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7840; REPAR-GLYPHO, LLC; Volume 3.9.
- 14) Volume 3.10 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: VAPOUR PRESSURE; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7950; REPAR-GLYPHO, LLC; Volume 3.10.
- 15) Volume 3.11 GLYPHOSATE TECHNICAL: Physical and Chemical

Mr. James Tompkins  
February 17, 2009

Page 4

Properties: UV / VISIBLE ABSORPTION; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7050; REPAR-GLYPHO, LLC; Volume 3.11.

The product chemistry data for the subject product was developed by Repar-Glypho, LLC.

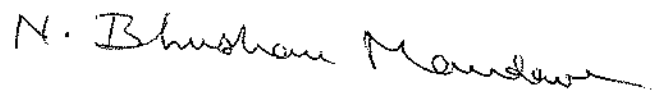
Please also note that Repar-Glypho, LLC is relying on the safety data submitted by other registrants on Glyphosate.

In addition to the above studies, we are also relying on other items of data on the subject product in the Agency's files.

We are requesting an "**Expedited Review**" in accordance with FIFRA Section 3(c)(3)(b)(i), because our product (Glyphosate Technical) is substantially similar or identical in composition and labeling to **GLYPHOSATE** (EPA Reg. No.: **524-420**).

Since we have fulfilled all the registration requirements, we request you grant the registration for the subject product, so that the applicant can market it for the upcoming rowing season.

Sincerely,



N. Bhushan Mandava, Ph.D., RAC  
Agent for Repar-Glypho, LLC

Enclosure

## TRANSMITTAL DOCUMENT

### NAME AND ADDRESS OF SUBMITTER:

Repar-Glypho, LLC  
c/o Mandava Associates, LLC  
1050 Connecticut Avenue, N.W., Ste 1000  
Washington, DC 20036

### REGULATORY ACTION SUPPORTED BY THIS PACKAGE:

FIFRA Registration Application for:

Product Name:	Glyphosate Technical
Active Ingredient:	Glyphosate
Company Name:	Repar-Glypho, LLC
EPA Company Number:	86004
EPA File Symbol:	Not Assigned

### TRANSMITTAL DATE:

February 17, 2009

### LIST OF SUBMITTED STUDIES:

- 47885401** 1) Volume 1: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310-340; OPPTS Test Guidelines 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC1; Repar-Glypho, LLC.
- 47885402** 2) Volume 2: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310 - 158.340; OPPTS Test Guideline 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC. (AMENDED REPORT)

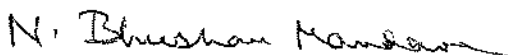


- 47885403** 3) Volume 2A: GLYPHOSATE TECHNICAL: Product Analysis and Certified Limits; Product Analysis Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.345 - 355; OPPTS Test Guideline 830.1700 -1800; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC.
- 47885404** 4) Volume 3 GLYPHOSATE TECHNICAL: Physical and Chemical Characteristics: Product Analysis in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310; OPPTS Test Guideline 830.6302 - 7960; REPAR-GLYPHO, LLC; Volume 3A.
- 47885405** 5) Volume 3.1 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: APPEARANCE (COLOUR, PHYSICAL STATE AND ODOUR); Product Analysis in Support of FIFRA Registration. Data Requirement: Guidelines: EPA OPPTS 830.6302, 830.6203 and 8306304; REPAR-GLYPHO, LLC; Volume 3.1.
- 47885406** 6) Volume 3.2 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: OXIDATION / REDUCTION; DATA in Support of FIFRA Registration; OPPTS Test Guideline 830.6314; REPAR-GLYPHO, LLC; Volume 3.2.
- 47885407** 7) Volume 3.3 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: FLAMMABILITY; Product Analysis in Support of FIFRA Registration. OPPTS Test Guideline 830.6315; REPAR-GLYPHO, LLC; Volume 3.3.
- 47885408** 8) Volume 3.4 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: pH; Product Analysis in Support of FIFRA Registration. Data Requirement; OPPTS Test Guideline 830.7000; REPAR-GLYPHO, LLC; Volume 3.4.
- 47885409** 9) Volume 3.5 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: MELTING POINT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7200; REPAR-GLYPHO, LLC; Volume 3.5.
- 47885410** 10) Volume 3.6 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: TAP DENSITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7300; REPAR-GLYPHO, LLC; Volume 3.6.
- 47885411** 11) Volume 3.7 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: DISSOCIATION CONSTANT; Product

Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7370; REPAR-GLYPHO, LLC; Volume 3.7.

- Reject (12)** 12) Volume 3.8 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: n-OCTANOL/WATER PARTITION COEFFICIENT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7550; REPAR-GLYPHO, LLC; Volume 3.8.
- 47685413** 13) Volume 3.9 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: WATER SOLUBILITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7840; REPAR-GLYPHO, LLC; Volume 3.9.
- 47685414** 14) Volume 3.10 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: VAPOUR PRESSURE; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7950; REPAR-GLYPHO, LLC; Volume 3.10.
- Reject (15)** 15) Volume 3.11 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: UV / VISIBLE ABSORPTION; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7050; REPAR-GLYPHO, LLC; Volume 3.11.

COMPANY OFFICIAL



N. Bhushan Mandava, Ph.D., RAC  
Registration Agent for Repar Corporation

**COMPANY CONTACT:**

N. Bhushan Mandava, Ph.D.  
Mandava Associates, LLC  
1730 M Street, NW Suite 906  
Washington, D.C. 20036  
Tel : (202) 223-1424/1747  
Fax : (202) 223-0141



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

March 3, 2009

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

OPP Decision Number: D-406729  
EPA File Symbol or Registration Number: 86004-R  
Product Name: GLYPHOSATE TECHNICAL  
EPA Receipt Date: 23-Feb-2009  
EPA Company Number: 86004  
Company Name: REPAR-GLYPHO, LLC

N. BHUSHAN MANDAVA, PH.D.  
MANDAVA ASSOCIATES, LLC  
REPAR-GLYPHO, LLC  
1050 CONN. AVE., NW, STE 1000  
WASHINGTON, DC 20036-

SUBJECT: Receipt of Application and 75% Small Business Waiver Request

Dear Registrant:

The Office of Pesticide Programs has received your application, 75% small business waiver request, and certification of payment. If you submitted data with this application, the results of the PRN-86-5 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R310  
NEW PRODUCT;NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT  
CHEMISTRY;ACUTE TOXICITY;PUBLIC HEALTH PEST EFFICACY);

Your request for waiver has been forwarded for review. You will be notified in writing when a determination is made regarding your request. If your waiver request is approved, the decision review time period will start on the date of approval. If your waiver request is denied, you will receive an invoice for the outstanding balance. If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 305-6249.

Sincerely,

A handwritten signature in cursive script, reading "Teresa Towne", is written over the typed name.

Front End Processing Staff  
Information Technology & Resources Management Division



United States  
Environmental Protection Agency  
Washington, DC 20460

☒ Registration  
☐ Amendment  
☐ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number 86004- R	2. EPA Product Manager Jim Tompkins	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Glyphosate Technical	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Repar-Glypho, LLC 8070 Georgia Avenue, Suite 209 Silver Spring, MD. 20910 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. 524-420 Product Name Glyphosate	

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input checked="" type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input checked="" type="checkbox"/> Other - Explain below.

Explanation: Use additional pages if necessary. (For section I and Section II.)

- 1) Application for FIFRA Section 3 Registration. Submission of Product Chemistry Studies in support of registration of Glyphosate Technical.
- 2) The action covered is New Product, Me-Too Product, Fast Track since the application is for formulation product registration that is substantially similar and/or identical to a currently registered product as cited in this application. The company Number is 86004. The file symbol is not assigned.
- 3) The applicant requested fee waiver.
- 4) Please direct all correspondence to: Mandava Associates, LLC; 1050 Connecticut Avenue, NW / Suite 1000; Washington, D.C. 20036
- 5) The contact Person fax number is (202) 223 - 0141 and e-mail address is: mandava@compuserve.com.

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
				<input type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 50 Kg, 100 Kg		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name N. Bhushan Mandava		Title Agent for Repar-Glypho, LLC		Telephone No. (Include Area Code) (202) 223-1424	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6. Date Application Received  <b>(Stamped)</b>
2. Signature N. Bhushan Mandava		3. Title Agent for Repar-Glypho, LLC			
4. Typed Name N. Bhushan Mandava		5. Date 02/17/09			

# Glyphosate Technical

For Manufacturing and Formulating Into Herbicides Only

## ACTIVE INGREDIENT:

Glyphosate ..... 96.3%  
OTHER INGREDIENTS: ..... 3.7%  
TOTAL: ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN**

## DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### First Aid

IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
IF SWALLOWED	Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Manufactured for:  
Repar - Glypho, LLC  
8070 Georgia Avenue / Suite 209  
Silver Spring, MD 20910

EPA Reg. No. 86004- \_\_\_\_\_ EPA Est. No: \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALLONS

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**DANGER: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED.** Do not get in eyes or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

## ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Eliminator Systems (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## PHYSICAL or CHEMICAL HAZARDS

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

**DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS.** This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial turf, ornamental nursery, tree and forestry, and residential sites; or some or all of the following food cropping systems: root, bulb, and tuber vegetables, leafy vegetables, Brassica and cucurbit vegetables, succulent and dried legume vegetables, fruiting vegetables, fruits (citrus, pome, stone, various tropical fruits, small fruits and berries), tree nuts, cereal grains, animal grasses and forages, herbs, spices and food crops including asparagus, avocado, banana, canola, coffee, cotton, coconut, cranberry, dates, flax, grapes, kiwi, lychee, mints, olive, palms, peanut, pineapple, soybeans, strawberry, sugar beet, sugarcane and tea.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed or seed by storage and disposal.

**PESTICIDE STORAGE:** Store in original container only, in a cool, dry, locked area. Store separately from other pesticides, fertilizers, food or feed to prevent contamination.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

**CONTAINER DISPOSAL:** Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty container into formulation equipment. This container may be returned for refilling with this product. If not refilled, dispose of empty container in a sanitary landfill or by incineration.

## CONDITIONS OF SALE AND LIMITED WARRANTY

REPAR - GLYPHO, LLC warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use herein described when used in accordance with the directions for use. The Directions For Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of REPAR - GLYPHO, LLC or the SELLER. To the extent consistent with applicable law, Repar Corporation shall not be liable for the consequential, special or indirect damages resulting from the handling or use of this product. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

Except as expressly provided herein, Repar - Glypho, LLC makes no warranties, guarantees, or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage.

# **MANDAVA ASSOCIATES, LLC**

*CONSULTANTS IN SCIENCE, TECHNOLOGY AND REGULATORY AFFAIRS  
1050 CONNECTICUT AVENUE, N.W., SUITE 1000, WASHINGTON, DC 20036*

*Telephone: (202)-223-1424/1747 • Fax: (202)-223-0141 • E-MAIL: [Mandava@compuserve.com](mailto:Mandava@compuserve.com)*

Hand Delivered

February 17, 2009

Mr. James Tompkins  
Product Manager (PM 25)  
Herbicide Branch  
Registration Division (7504C)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Washington, D.C. 20460

SUBJECT: ME-TOO Application for Registration  
Product Name: **GLYPHOSATE TECHNICAL**  
Active Ingredient: Glyphosate  
Company Name: Repar-Glypho, LLC  
EPA Company Number: 86004

Dear Mr. Tompkins:

On behalf of Repar-Glypho, LLC, we are submitting a **ME-TOO** application for the registration of Glyphosate TECHNICAL which is a technical grade product containing Glyphosate as an active ingredient (AI). The source for AI is Glyphosate Technical (EPA Reg. No: To Be Assigned).

In support of the application for the subject product registration, we are providing the following administrative materials and product chemistry data on **GLYPHOSATE TECHNICAL**:

- 1) Application for Pesticide Registration
- 2) Confidential Statement of Formula
- 3) Certification with Respect to Citation of Data
- 4) Data Matrix
- 5) Five Copies of Draft Labeling for the Subject Product

- 1) Volume 1: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310-340; OPPTS Test Guidelines 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC1; Repar-Glypho, LLC.
- 2) Volume 2: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310 - 158.340; OPPTS Test Guideline 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC. (AMENDED REPORT)
- 3) Volume 2A: GLYPHOSATE TECHNICAL: Product Analysis and Certified Limits; Product Analysis Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.345 - 355; OPPTS Test Guideline 830.1700 -1800; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC.
- 4) Volume 3 GLYPHOSATE TECHNICAL: Physical and Chemical Characteristics: Product Analysis in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310; OPPTS Test Guideline 830.6302 - 7960; REPAR-GLYPHO, LLC; Volume 3A.
- 5) Volume 3.1 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: APPEARANCE (COLOUR, PHYSICAL STATE AND ODOUR); Product Analysis in Support of FIFRA Registration. Data Requirement: Guidelines: EPA OPPTS 830.6302, 830.6203 and 830.6304; REPAR-GLYPHO, LLC; Volume 3.1.
- 6) Volume 3.2 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: OXIDATION / REDUCTION; DATA in Support of FIFRA Registration; OPPTS Test Guideline 830.6314; REPAR-GLYPHO, LLC; Volume 3.2.
- 7) Volume 3.3 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: FLAMMABILITY; Product Analysis in Support of FIFRA Registration. OPPTS Test Guideline 830.6315;

REPAR-GLYPHO, LLC; Volume 3.3.

- 8) Volume 3.4 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: pH; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7000; REPAR-GLYPHO, LLC; Volume 3.4.
- 9) Volume 3.5 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: MELTING POINT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7200; REPAR-GLYPHO, LLC; Volume 3.5.
- 10) Volume 3.6 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: TAP DENSITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7300; REPAR-GLYPHO, LLC; Volume 3.6.
- 11) Volume 3.7 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: DISSOCIATION CONSTANT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7370; REPAR-GLYPHO, LLC; Volume 3.7.
- 12) Volume 3.8 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: n-OCTANOL/WATER PARTITION COEFFICIENT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7550; REPAR-GLYPHO, LLC; Volume 3.8.
- 13) Volume 3.9 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: WATER SOLUBILITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7840; REPAR-GLYPHO, LLC; Volume 3.9.
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- 15) Volume 3.11 GLYPHOSATE TECHNICAL: Physical and Chemical



Mr. James Tompkins  
February 17, 2009

Page 4

Properties: UV / VISIBLE ABSORPTION; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7050; REPAR-GLYPHO, LLC; Volume 3.11.

The product chemistry data for the subject product was developed by Repar-Glypho, LLC.

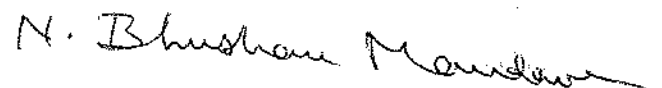
Please also note that Repar-Glypho, LLC is relying on the safety data submitted by other registrants on Glyphosate.

In addition to the above studies, we are also relying on other items of data on the subject product in the Agency's files.

We are requesting an "**Expedited Review**" in accordance with FIFRA Section 3(c)(3)(b)(i), because our product (Glyphosate Technical) is substantially similar or identical in composition and labeling to **GLYPHOSATE** (EPA Reg. No.: **524-420**).

Since we have fulfilled all the registration requirements, we request you grant the registration for the subject product, so that the applicant can market it for the upcoming rowing season.

Sincerely,



N. Bhushan Mandava, Ph.D., RAC  
Agent for Repar-Glypho, LLC

Enclosure

## TRANSMITTAL DOCUMENT

### NAME AND ADDRESS OF SUBMITTER:

Repar-Glypho, LLC  
c/o Mandava Associates, LLC  
1050 Connecticut Avenue, N.W., Ste 1000  
Washington, DC 20036

### REGULATORY ACTION SUPPORTED BY THIS PACKAGE:

FIFRA Registration Application for:

Product Name:	Glyphosate Technical
Active Ingredient:	Glyphosate
Company Name:	Repar-Glypho, LLC
EPA Company Number:	86004
EPA File Symbol:	Not Assigned

### TRANSMITTAL DATE:

February 17, 2009

### LIST OF SUBMITTED STUDIES:

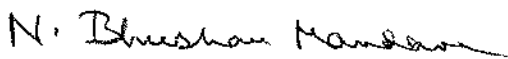
- 1) Volume 1: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310-340; OPPTS Test Guidelines 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC1; Repar-Glypho, LLC.
- 2) Volume 2: GLYPHOSATE TECHNICAL: Product Identity and Composition. Data in Support of FIFRA Registration. Data Requirement: 40 CFR 158.310 - 158.340; OPPTS Test Guideline 830.1550 - 1670; Project Number: REPAR-GLYPHO-TECH-PC2; Repar-Glypho, LLC. (AMENDED REPORT)

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Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7370; REPAR-GLYPHO, LLC; Volume 3.7.

- 12) Volume 3.8 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: n-OCTANOL/WATER PARTITION COEFFICIENT; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7550; REPAR-GLYPHO, LLC; Volume 3.8.
- 13) Volume 3.9 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: WATER SOLUBILITY; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7840; REPAR-GLYPHO, LLC; Volume 3.9.
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- 15) Volume 3.11 GLYPHOSATE TECHNICAL: Physical and Chemical Properties: UV / VISIBLE ABSORPTION; Product Analysis in Support of FIFRA Registration. Data Requirement: OPPTS Test Guideline 830.7050; REPAR-GLYPHO, LLC; Volume 3.11.

COMPANY OFFICIAL



N. Bhushan Mandava, Ph.D., RAC  
Registration Agent for Repar Corporation

**COMPANY CONTACT:**

N. Bhushan Mandava, Ph.D.  
Mandava Associates, LLC  
1730 M Street, NW Suite 906  
Washington, D.C. 20036  
Tel : (202) 223-1424/1747  
Fax : (202) 223-0141



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**401 M Street, S.W.**  
**WASHINGTON, D.C. 20460**

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the completed form to this address.

**Certification with Respect to Citation of Data**

Applicant's/Registrant's Name, Address, and Telephone Number Repar-Glypho, LLC, 8070 Georgia Avenue, Suite 209, Silver Spring, MD 20910; (202) 223-1424	EPA Registration Number/File Symbol 86004-
Active Ingredient(s) and/or representative test compounds Glyphosate (CAS # 1071-83-6)	Date February 17, 2009
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158) Herbicide, Terrestrial, Food Crops	Product Name Glyphosate Technical

**NOTE:** If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

**SECTION I: METHOD OF DATA SUPPORT (Check one method only)**

<input checked="" type="checkbox"/> I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).	<input type="checkbox"/> I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).
---	--

**SECTION II: GENERAL OFFER TO PAY**

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]

☒ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.

**SECTION III: CERTIFICATION**

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature <i>N. Bhushan Mandava</i>	Date Feb. 17, 2009	Typed or Printed Name and Title N. Bhushan Mandava, Agent for Repar-Glypho, LLC
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
401 M Street, S.W.  
WASHINGTON, D.C. 20460

Form Approved OMB No. 2070-0060

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DATA MATRIX

Date February 17, 2009			EPA Reg No./File Symbol 86004-		Page 1 of 11
Applicant's/Registrant's Name & Address Repar-Glypho, LLC, 8070 Georgia Avenue, Suite 209, Silver Spring, MD 20910			Product Glyphosate Technical		
Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.1550	Product Identity and Composition		Repar-Glypho, LLC, 8070 Georgia Avenue, Suite 209, Silver Spring, MD 20910	OWN	
830.1600	Description of Materials Used to Produce the Product		Repar-Glypho, LLC	OWN	
830.1620	Description of Production Process		Repar-Glypho, LLC	OWN	
830.1650	Description of Formulation Process		Repar-Glypho, LLC	OWN	
830.1670	Discussion of Formation of Impurities		Repar-Glypho, LLC	OWN	
830.1700	Preliminary Analysis		Repar-Glypho, LLC	OWN	
830.1750	Certified Limits		Repar-Glypho, LLC	OWN	
830.1800	Enforcement Analytical Method		Repar-Glypho, LLC	OWN	
830.6302	Color		Repar-Glypho, LLC	OWN	
830.6303	Physical State		Repar-Glypho, LLC	OWN	
830.6304	Odor		Repar-Glypho, LLC	OWN	
830.6313	Stability to Normal & Elevated Temperatures, Metals and Metal Ions		Repar-Glypho, LLC	OWN	
830.6314	Oxidation/Reduction: Chemical Incompatibility		Repar-Glypho, LLC	OWN	
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009

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Applicant's/Registrant's Name & Address Repar-Glypho, LLC, 8070 Georgia Avenue, Suite 209, Silver Spring, MD 20910			Product Glyphosate Technical		
Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.6315	Flammability		Repar-Glypho, LLC		Not Required
830.6316	Explosibility		Repar-Glypho, LLC		Not Required
830.6317	Storage Stability		Repar-Glypho, LLC	OWN	
830.6319	Miscibility		Repar-Glypho, LLC	OWN	
830.6320	Corrosion Characteristics		Repar-Glypho, LLC	OWN	
830.6321	Dielectric Breakdown Voltage		Repar-Glypho, LLC	OWN	
830.7000	pH		Repar-Glypho, LLC	OWN	
830.7050	UV/Visible Absorption		Repar-Glypho, LLC	OWN	
830.7100	Viscosity		Repar-Glypho, LLC	OWN	
830.7200	Melting Point/Melting Range		Repar-Glypho, LLC	OWN	
830.7220	Boiling Point/Boiling Range		Repar-Glypho, LLC	OWN	
830.7300	Density/Relative Density/Bulk Density		Repar-Glypho, LLC	OWN	
830.7370	Dissociation Constants in Water		Repar-Glypho, LLC	OWN	
830.7550	Partition Coefficient (n-octanol/water), Shake Flask Method		Repar-Glypho, LLC	OWN	
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009



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Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.7560	Partition Coefficient (n-octanol/water),		Repar-Glypho, LLC	OWN	
	Generator Column Method				
830.7570	Partition Coefficient (n-octanol/water),		Repar-Glypho, LLC	OWN	
	Estimation by Liquid Chromatography				
830.7840	Water Solubility: Column Elution Method;		Repar-Glypho, LLC	OWN	
	Shake Flask Method				
830.7860	Water Solubility, Generator Column Method		Repar-Glypho, LLC	OWN	
830.7950	Vapor Pressure		Repar-Glypho, LLC	OWN	
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009





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Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
CITE-ALL			Syngenta Crop Protection, Inc.	Pay	
			Attn: Regulatory Affairs		
			P.O. BOX 18300		
			Greensboro, NC 27419 (Company # 100)		
			Nutarm Americas, Inc.	Pay	
			150 Harvester Drive, Suite 200		
			Burr Ridge, IL 60527 (Company # 228)		
			The Scotts Company	Pay	
			D/B/A The Ortho Group		
			P.O. BOX 190		
			Marysville, OH 43040 (Company # 239)		
			FMC Corp, Agricultural Products Group	Pay	
			1735 Market Street		
			Philadelphia, PA 19103 (Company # 279)		
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009



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Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
CITE-ALL			E.I. DU PONT DE NEMOURS AND CO., INC	Pay	
			Dupont Crop Protection (S300/427)		
			P.O. BOX 30		
			Newark, DE 19714 (Company # 352)		
			Monsanto Company	Pay	
			1300 I Street, NW, Suite 450 East		
			Washington, DC 20005 (Company # 524)		
			Cheminova A/S	Pay	
			1600 Wilson Blvd., Suite 700		
			Arlington, VA 22209 (Company # 4787)		
			Helena Chemical Co.	Pay	
			225 Schilling Boulevard, Suite 300		
			Collierville, TN 38017 (Company # 5905)		
			Ritter Chemical, Inc. 1150 18th St., N.W., Suite	Pay	
			1000 Washington, DC 20036 (Company # 9468)		
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009



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Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
CITE-ALL			Drexel Chemical Company	Pay	
			PO BOX 13327		
			Memphis, TN 38113 (Company # 19713)		
			Industria Prodotti Chimici S.P.A.	Pay	
			122 C St., NW, Ste 740		
			Washington, DC 20001 (Company # 33660)		
			Nufarm Limited	Pay	
			P.O. BOX 13439		
			RTP, NC 27709 (Company # 35935)		
			Albaugh, Inc.	Pay	
			P.O. BOX 2127		
			Valdosta, GA 31604 (Company # 42750)		
			BASF Sparks, LLC	Pay	
			P.O. BOX 13528		
			RTP, NC 27709 (Company # 51036)		
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009



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Applicant's/Registrant's Name & Address

Repar-Glypho, LLC, 8070 Georgia Avenue, Suite 209, Silver Spring, MD 20910

Product

Glyphosate Technical

Ingredient Glyphosate (CAS # 1071-83-6)

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
CITE-ALL			Valent U.S.A. Corporation	Pay	
			1600 Riviera Avenue, Suite 200		
			Walnut Creek, CA 94596 (Company # 59639)		
			Dow AgroSciences, LLC	Pay	
			9330 Zionsville RD 308/2E		
			Indianapolis, IN 46268 (Company # 62719)		
			Makhteshim-Agan of North America, Inc.	Pay	
			4515 Falls of Neuse RD, Suite 300		
			Raleigh, NC 27609 (Company # 66222)		
			Spray Drift Task Force	Pay	
			McKenna, Long & Aldridge, LLP		
			1900 K Street, NW		
			Washington, DC 20006 (Company # 66607)		
			Chemnova, Inc. 1600 Wilson Boulevard, Suite	Pay	
			700 Arlington, VA 22209 (Company # 67760)		

Signature

*N. B. Mandava*

Name and Title

N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC

Date

Feb. 17, 2009



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Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
CITE-ALL			Chemical Products Technologies, LLC	Pay	
			PO BOX 2275		
			Cartersville, GA 30120 (Company # 70829)		
			Nufarm, Inc.	Pay	
			150 Harvester Drive Suite 200		
			Burr Ridge, IL 60527 (Company #71368)		
			Outdoor Residential Exposure Task Force	Pay	
			1350 I Street, N.W.		
			Washington, DC 20005 (Company # 71754)		
			Agricultural Reentry Task Force	Pay	
			1350 I Street, N.W.		
			Washington, DC 20005 (Company # 71755)		
			Nations AG II, LLC	Pay	
			45 f5 Falls of Neuse Road, Suite 300		
			Raleigh, NC 27608 (Company # 72167)		
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009



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Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
CITE-ALL			Zhejiang Xinan Chemical Industrial Group	Pay	
			115 Obtuse Hill		
			Brookfield, CT 06804 (Company # 73432)		
			FIFRA Endangered Species Task Force, LLC	Pay	
			c/o Harold Himmelman (Beveridge & Diamond		
			PC) 1350 I Street, NW		
			Washington, DC 20005 (Company # 73989)		
			Helm Agro US, Inc.	Pay	
			8295 Tournament Drive, Suite 310		
			Memphis, TN 38125 (Company # 74530)		
			Residential Exposure Joint Venture (REJF)	Pay	
			900 17th Street, NW, Suite 300		
			Washington, DC 20006 (Company # 74888)		
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009



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Ingredient Glyphosate (CAS # 1071-83-6)					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
CITE-ALL			Agricultural Handlers Exposure Task Force	Pay	
			PO BOX 509		
			Macon, MO 63552 (Company # 75234)		
			Mey Corporation	Pay	
			121 S. Estes Drive, Suite 101		
			Chapel Hill, NC 27514 (Company # 80967)		
			Libertas Now, Inc.	Pay	
			108 Severn Ave., Suite B		
			Annapolis, MD 21403 (Company # 81142)		
			AXSS USA, LLC	Pay	
			115 Obtuse Hill Road		
			Brookfield, CT 06804 (Company # 83520)		
Signature <i>N. B. Mandava</i>			Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC		Date Feb. 17, 2009



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Ingredient Glyphosate (CAS # 1071-83-6)

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
CITE-ALL			Celsius Property B.V., Amsterdam (NL)	Pay	
			Neuhausen A. RHF Branch		
			4515 Falls of Neuse Rd., Suite 300		
			Raleigh, NC 27609 (Company # 83558)		
			Generic Endangered Species Task Force	Pay	
			(GESTF) 500 Eighth Street, N.W.		
			Washington, DC 20004 (Company # 84653)		
			Red Eagle Chemicals Corp	Pay	
			PO Box 640		
			Hockessin, DE 19707 (Company # 85595)		
			Redeagle International LLC	Pay	
			PO BOX 640		
			Hockessin, DE 19707 (Company # 85678)		

Signature <i>N. B. Mandava</i>	Name and Title N. Bhushan Mandava, Ph.D., Agent for Repar-Glypho, LLC	Date Feb. 17, 2009
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Pages \_\_\_\_\_ 155 \_\_\_\_\_ through \_\_\_\_\_ 156 \_\_\_\_\_ are not included in this copy.

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The material not included contains the following type of information:

\_\_\_\_\_ Identity of product inert ingredients.

\_\_\_\_\_ Identity of product impurities.

\_\_\_\_\_ Description of the product manufacturing process.

\_\_\_\_\_ Description of quality control procedures.

\_\_\_\_\_ Identity of the source of product ingredients.

\_\_\_\_\_ Sales or other commercial/financial information.

\_\_\_\_\_ A draft product label.

  X   The product confidential statement of formula.

\_\_\_\_\_ Information about a pending registration action.

\_\_\_\_\_ FIFRA registration data.

\_\_\_\_\_ The document is a duplicate of page(s) \_\_\_\_\_.

\_\_\_\_\_ The document is not responsive to the request.

\_\_\_\_\_ Internal deliberative information.

\_\_\_\_\_ Privileged attorney-client communication.

\_\_\_\_\_ Claimed Confidential by submitter upon submission to the Agency.

# Glyphosate Technical

For Manufacturing and Formulating Into Herbicides Only

## ACTIVE INGREDIENT:

Glyphosate ..... 96.3%  
OTHER INGREDIENTS:..... 3.7%  
TOTAL:..... 100.0%

**KEEP OUT OF REACH OF CHILDREN**

## DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### First Aid

IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye
IF SWALLOWED	Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Manufactured for:  
Repar - Glypho, LLC  
8070 Georgia Avenue / Suite 209  
Silver Spring, MD 20910

EPA Reg. No. 86004-\_\_\_\_\_ EPA Est. No: \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALLONS

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**DANGER: CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED.** Do not get in eyes or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

## ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Eliminator Systems (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## PHYSICAL or CHEMICAL HAZARDS

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

**DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS.** This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial turf, ornamental nursery, tree and forestry, and residential sites; or some or all of the following food cropping systems: root, bulb, and tuber vegetables, leafy vegetables, Brassica and cucurbit vegetables, succulent and dried legume vegetables, fruiting vegetables, fruits (citrus, pome, stone, various tropical fruits, small fruits and berries), tree nuts, cereal grains, animal grasses and forages, herbs, spices and food crops including asparagus, avocado, banana, canola, coffee, cotton, coconut, cranberry, dates, flax, grapes, kiwi, lychee, mints, olive, palms, peanut, pineapple, soybeans, strawberry, sugar beet, sugarcane and tea.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed or seed by storage and disposal.

**PESTICIDE STORAGE:** Store in original container only, in a cool, dry, locked area. Store separately from other pesticides, fertilizers, food or feed to prevent contamination.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

**CONTAINER DISPOSAL:** Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty container into formulation equipment. This container may be returned for refilling with this product. If not refilled, dispose of empty container in a sanitary landfill or by incineration.

## CONDITIONS OF SALE AND LIMITED WARRANTY

REPAR - GLYPHO, LLC warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use herein described when used in accordance with the directions for use. The Directions For Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of REPAR - GLYPHO, LLC or the SELLER. To the extent consistent with applicable law, Repar Corporation shall not be liable for the consequential, special or indirect damages resulting from the handling or use of this product. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

Except as expressly provided herein, Repar - Glypho, LLC makes no warranties, guarantees, or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage.

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Page \_\_\_\_\_ is not included in this copy.

Pages \_\_\_\_\_ 158 \_\_\_\_\_ through \_\_\_\_\_ 166 \_\_\_\_\_ are not included in this copy.

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The material not included contains the following type of information:

\_\_\_\_\_ Identity of product inert ingredients.

\_\_\_\_\_ Identity of product impurities.

\_\_\_\_\_ Description of the product manufacturing process.

\_\_\_\_\_ Description of quality control procedures.

\_\_\_\_\_ Identity of the source of product ingredients.

\_\_\_\_\_ Sales or other commercial/financial information.

\_\_\_\_\_ A draft product label.

  X   The product confidential statement of formula.

\_\_\_\_\_ Information about a pending registration action.

\_\_\_\_\_ FIFRA registration data.

\_\_\_\_\_ The document is a duplicate of page(s) \_\_\_\_\_.

\_\_\_\_\_ The document is not responsive to the request.

\_\_\_\_\_ Internal deliberative information.

\_\_\_\_\_ Privileged attorney-client communication.

\_\_\_\_\_ Claimed Confidential by submitter upon submission to the Agency.

# GLYPHOSATE

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

## DANGER!

CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED. Do not get in eyes or on clothing. Avoid breathing dust. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash contaminated clothing before reuse.

**FIRST AID:** Call a poison control center or doctor for treatment advice.

IF IN EYES	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
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IF SWALLOWED	Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
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IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.
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Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as Glyphosate, EPA Reg. No. 524-420. You may also contact (314) 694-4000, call collect day or night, for emergency treatment information.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

## Environmental Hazards

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## Physical or Chemical Hazards

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR TANKS. This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

Read entire label before using this product.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Use only for manufacturing, formulating, or repackaging into a herbicide for use in aquatic, industrial, turf, ornamental nursery, tree and forestry, and residential sites; or some or all of the following food cropping systems: root, bulb, and tuber vegetables, leafy vegetables, brassica and cucurbit vegetables, succulent and dried legume vegetables, fruiting vegetables, fruits (citrus, pome, stone, various tropical fruits, small fruits and

berries), tree nuts, cereal grains, animal grasses and forages, herbs, spices, and food crops including asparagus, avocado, banana, canola, coffee, cotton, coconut, cranberry, dates, flax, grapes, kiwi, lychee, mints, olive, palms, peanut, pineapple, soybeans, strawberry, sugar beet, sugarcane, and tea.

## Storage and Disposal

**STORAGE:** Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Keep container closed to prevent spills and contamination.

**DISPOSAL:** Wastes of this product may cause irreversible eye damage and may be dangerous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Emptied container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty bag into formulation equipment. This bag may be returned for refilling with this product. If not refilled, dispose of empty bag in a sanitary landfill or by incineration.

## ACTIVE INGREDIENT:

N-(phosphonomethyl)glycine..... 96.3%

OTHER INGREDIENTS:..... 3.7%  
100.0%

## LIMIT OF WARRANTY AND LIABILITY

Monsanto Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from Monsanto Company.

EPA Reg. No. 524-420

ACCEPTED  
with COMMENTS  
In EPA Letter Dated: NET

OCT - 6 2003

lb.

EPA Est. 524-1A-t ☐ 524-1A-t ☐

LOT NO.

PACKER

© [date] MONSANTO COMPANY, ST. LOUIS, MISSOURI 63167, U.S.A.

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
524-420

[print plate]

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